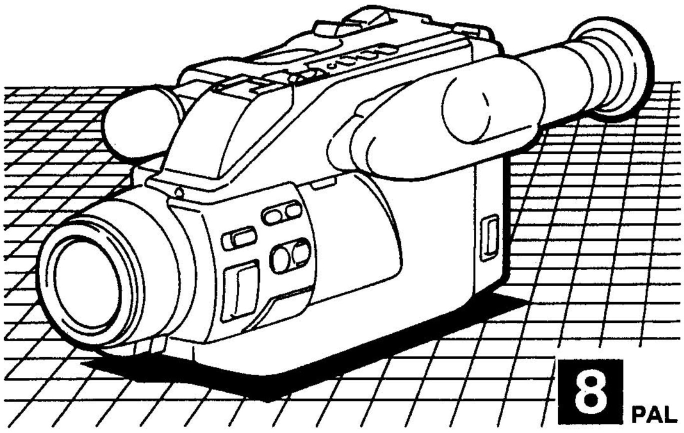
SANYO

8 mm Camcorder

VM-RZ2R (U.K.)
(EUROPE)
(GENERAL
PAL AREA)

VM-D90R (U.K.)



VM-RZ2R
PRODUCTION CODE No.
126 043 03 (U.K.)
126 043 07 (EUROPE)
126 043 08 (GENERAL
PAL AREA)

VM-D90R
PRODUCTION CODE No.
126 043 04 (U.K.)

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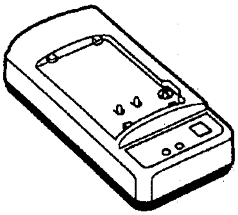
ER20P/E, EX, GX, EDX

REFERENCE NO. PL 550018

[ACCESSORIES AND OTHERS]

LOCATION	PARTS No.	DESCRIPTION
1	636 045 5801	CARTON CASE INNER(E)
2	636 045 6020	CARTON CASE INNER(EDX)
3	636 045 8550	CARTON CASE INNER(EX)
4	636 045 8567	CARTON CASE INNER(GX)
5	636 042 0137	CUSHION INNER, TOP
6	636 042 0144	CUSHION INNER, BOTTOM
7	645 004 9149	ADAPTOR, AC-DC(E/EDX)
8	645 005 1289	ADAPTOR, AC-DC(EX/GX)
9	636 045 6044	INSTRUCTION MANUAL(E)
10	636 045 6051	INSTRUCTION MANUAL(EDX)
11	636 045 8673	INSTRUCTION MANUAL(EX) (GERMAN/DUTCH/ITALIAN)
12	636 046 1437	INSTRUCTION MANUAL(EX) (DANISH/PORTUGUESE) (SWEDISH/FINNISH)
13	636 045 8659	INSTRUCTION MANUAL(GX) (ENGLISH/FRENCH/SPANISH)
14	636 045 8727	INSTRUCTION MANUAL(GX) (ARABIC/CHINESE/RUSSIAN)
15	636 040 0481	REMOCON, WIRELESS(E/EX/GX)
16	636 040 9897	REMOCON, WIRELESS(EDX)
17	636 040 0467	BATTERY, LID REMOCON
18	645 002 8373	CABLE, DC OUTPUT
OR	645 005 0923	CABLE, DC OUTPUT(E/EDX)
19	636 040 2461	CABLE, RF(E/EDX)
20	645 000 5343	RF MODULATOR(E/EDX)
21	645 002 8380	CABLE, SCART ADAPTOR (EX/GX)
22	636 031 2302	CABLE, RCA(EX/GX)
OR	645 003 3391	CABLE, AV 2PIN(EX/GX)
23	636 042 6177	BELT, SHOULDER

7, 8



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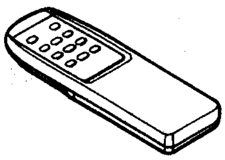

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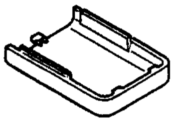

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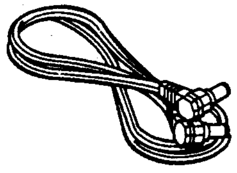

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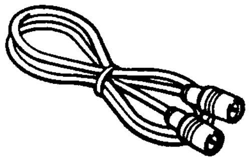

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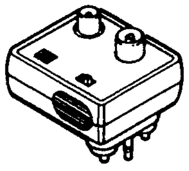

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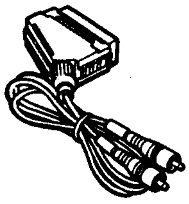

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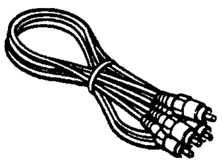

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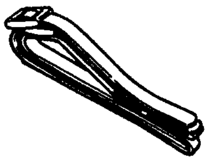


Note : Alphabetic characters enclosed by ( ) in the descriptions indicate destination countries for the VM-RZ2R/ VM-D90R.

E : U.K. (VM-RZ2R)

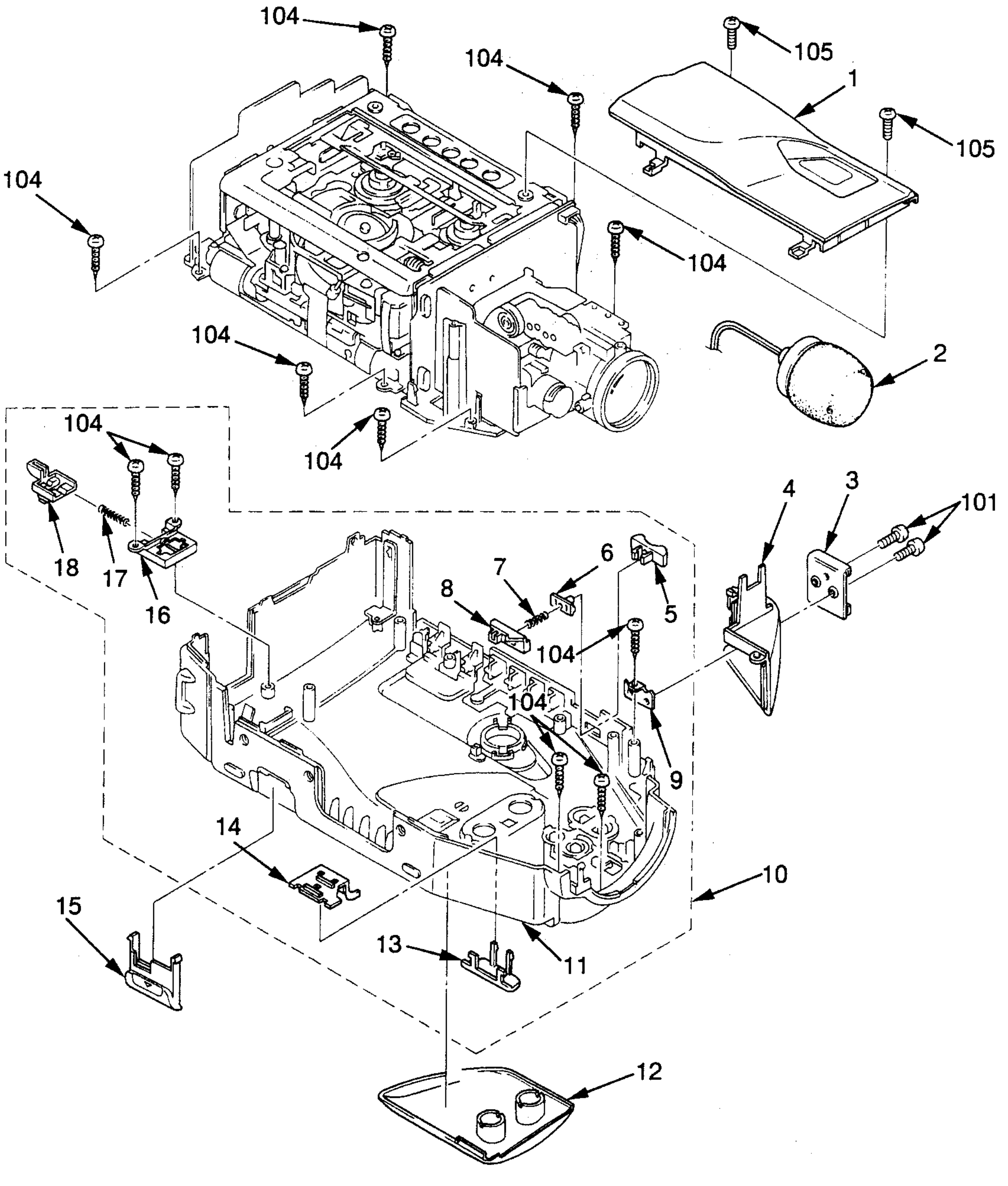
EDX : U.K. (VM-D90R)

EX : EUROPE (VM-RZ2R)

GX : GENERAL PAL AREA (VM-RZ2R)

[CABINET 1]

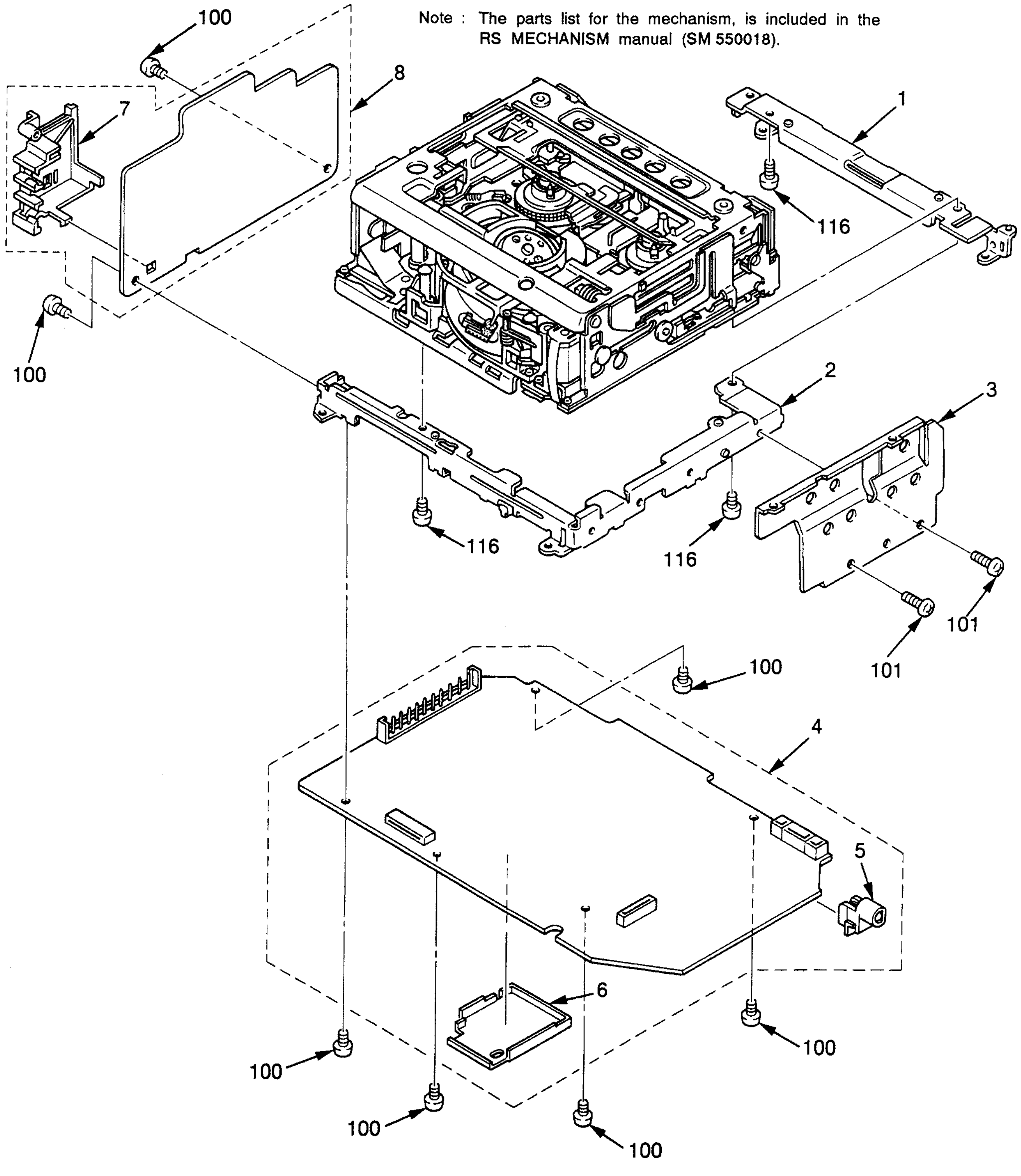
LOCATION	PARTS No.	DESCRIPTION
1	636 044 0753	ASSY, DOOR, CASSETTE
2	636 039 2458	ASSY, MICROPHONE
3	636 039 9464	CATCHER, ACC
4	636 043 4059	WINDOW, IR
5	636 030 0552	KNOB, POWER SLIDE
6	636 034 8110	BUTTON, POWER
7	636 030 0910	SPRING, POWER, BUTTON
8	636 039 9389	SLIDE, POWER
9	636 042 8003	BRACKET, ACC SHOE
10	636 045 5689	COMPL, CABINET, LEFT (E,EX,GX)
10	636 045 5979	COMPL, CABINET, LEFT(EDX)
11	636 045 5696	ASSY, CABINET, LEFT (E,EX,GX)
11	636 045 5986	ASSY, CABINET, LEFT(EDX)
12	636 045 5856	COVER, JACK(E,EX,GX)
12	636 045 6204	COVER, JACK(EDX)
13	636 041 6307	KNOB, AUTO LOCK
14	636 039 9396	SLIDE, AUTO
15	636 039 8931	COVER, LITHIUM, BATTERY
16	636 039 9181	HOLDER, BATTERY
17	636 039 9297	C, SPRING, BATTERY
18	636 039 9099	KNOB, BATTERY
101	411 151 9406	SCR S-TPG PAN PCS 1.7X4
104	411 137 3800	SCR S-TPG PAN PCS 2X5
105	411 156 3003	SCR S-TPG PAN PCS 2X6



[CABINET 2]

LOCATION	PARTS No.	DESCRIPTION
1	636 040 4915	BRACKET, MECHA, B
2	636 040 4908	BRACKET, MECHA, A
3	636 042 0892	HEAT SINK, B
4	636 045 4736	COMPL, PWB, CP-1
5	636 039 9877	HOLDER, IR LED
6	636 045 4453	SHIELD, CASE
7	636 039 9242	HOLDER, TERMINAL
8	636 045 2725	COMPL, PWB, PW-1
100	411 154 5504	SCR S-TPG PAN PCS 1.7X4
101	411 151 9406	SCR S-TPG PAN PCS 1.7X4
116	411 154 3906	SCR S-TPG PAN PCS 1.4X3

Note : The parts list for the mechanism, is included in the RS MECHANISM manual (SM 550018).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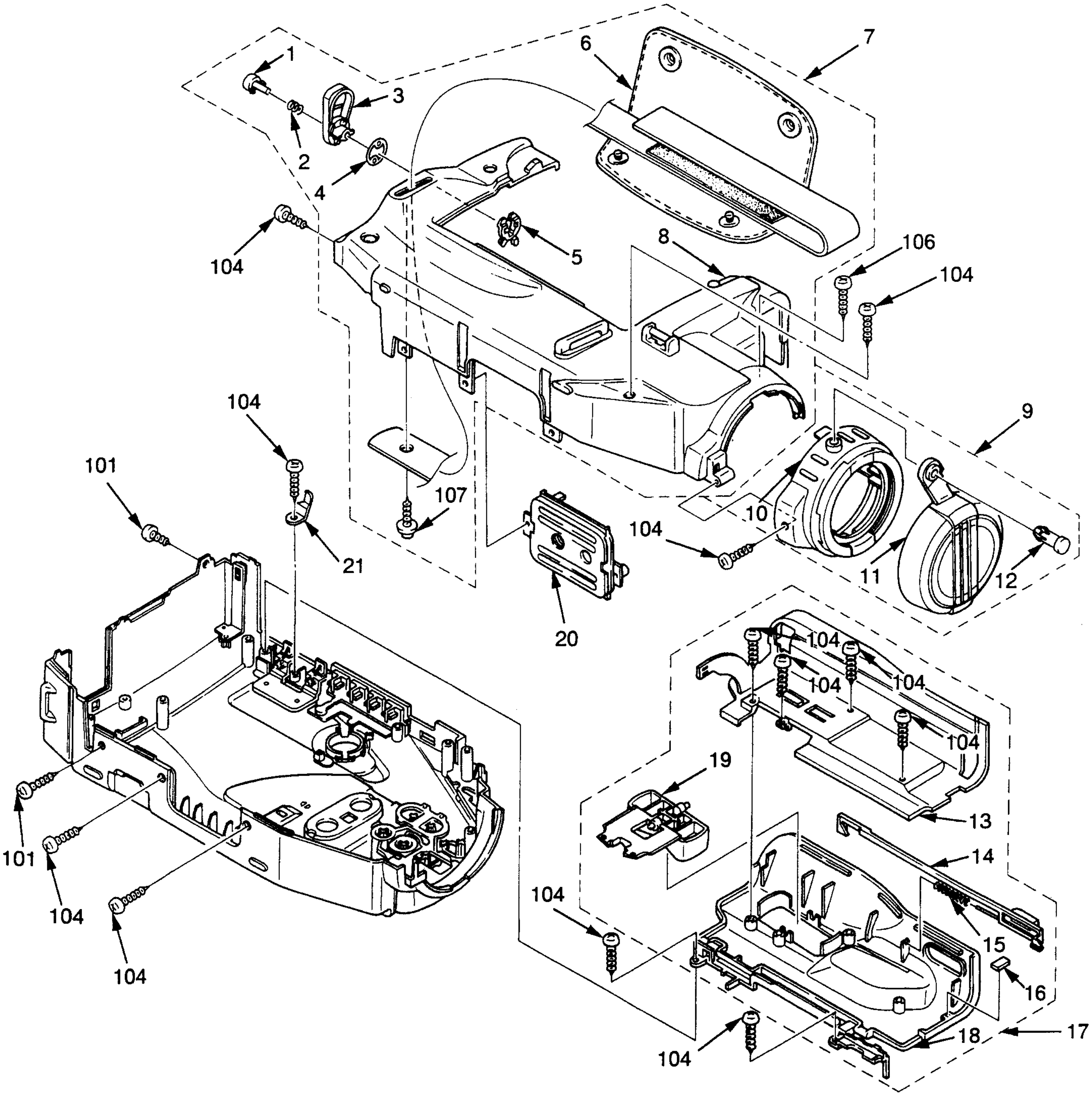
100
100
100
100

[CABINET 3]

LOCATION	PARTS No.	DESCRIPTION
1	636 039 9075	BUTTON, REC
2	636 041 7878	C, SPRING, REC
3	636 040 7121	LEVER, REC
4	636 039 9341	PLATE SPRING, REC
5	636 039 9211	HOLDER, REC
6	636 045 8048	ASSY, HOLDER, GRIP, BELT
7	636 045 7492	COMPL, CABINET, RIGHT
8	636 043 3618	ASSY, CABINET, RIGHT
9	636 043 3625	COMPL, COVER, FRONT
10	636 043 5759	COVER, FRONT
11	636 039 9266	CAP, LENS
12	636 039 9259	HOLDER, CAP
13	636 042 5613	COVER, DOOR, TOP
14	636 039 9419	SLIDE, DOOR, TOP
15	636 034 8523	C, SPRING, DOOR
16	636 042 6115	PAD, DOOR, TOP
17	636 043 3663	COMPL, DOOR, TOP
18	636 043 3670	ASSY, DOOR, TOP
19	636 041 9735	BUTTON, ZOOM
20	636 039 9518	STAND, TRI POD
21	636 039 9839	PLATE SPRING, DOOR, TOP
101	411 151 9406	SCR S-TPG PAN PCS 1.7X4
104	411 137 3800	SCR S-TPG PAN PCS 2X5
106	411 133 2401	SCR S-TPG PAN PCS 2X8
107	412 045 1001	SPECIAL SCREW 2X5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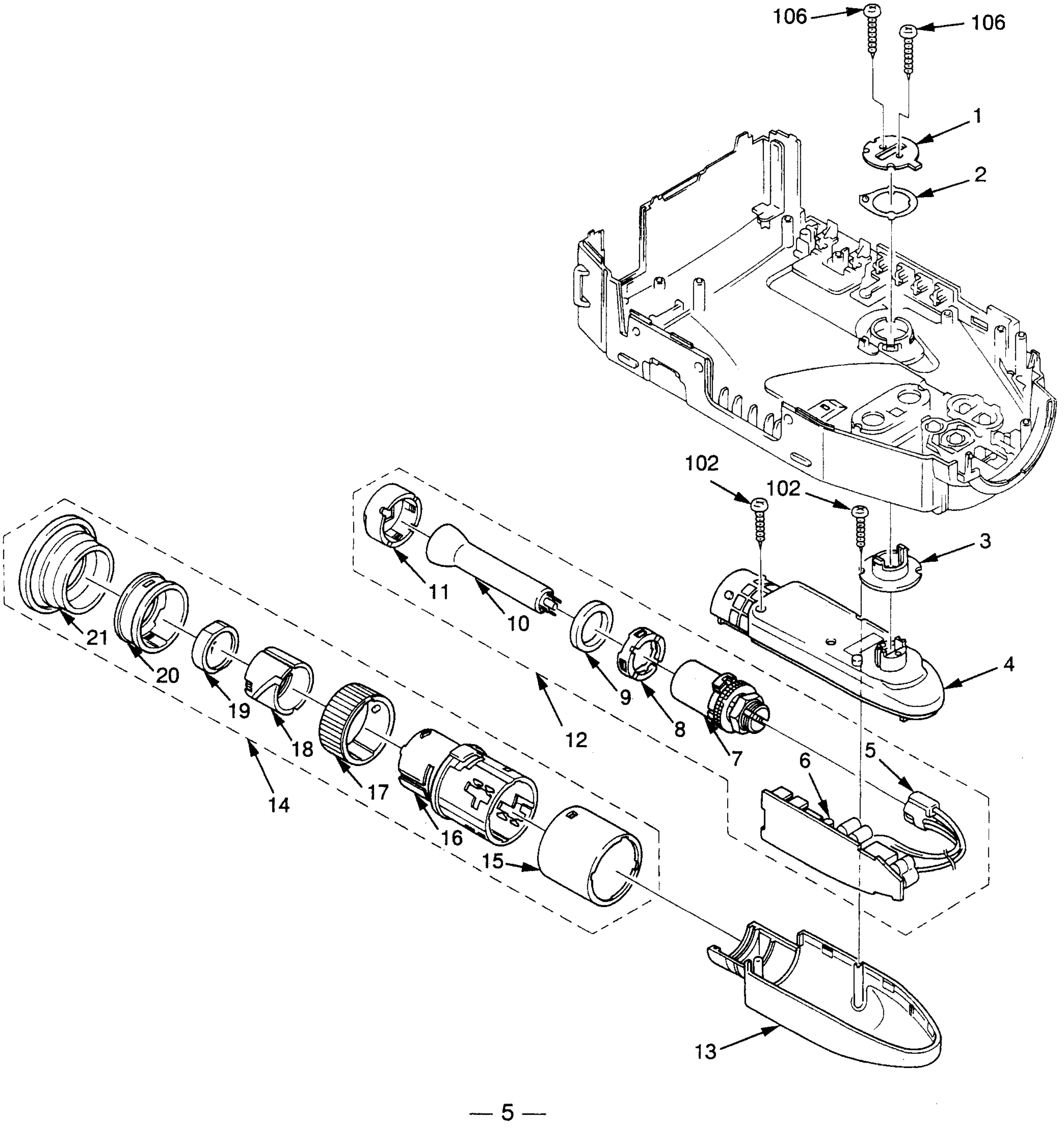
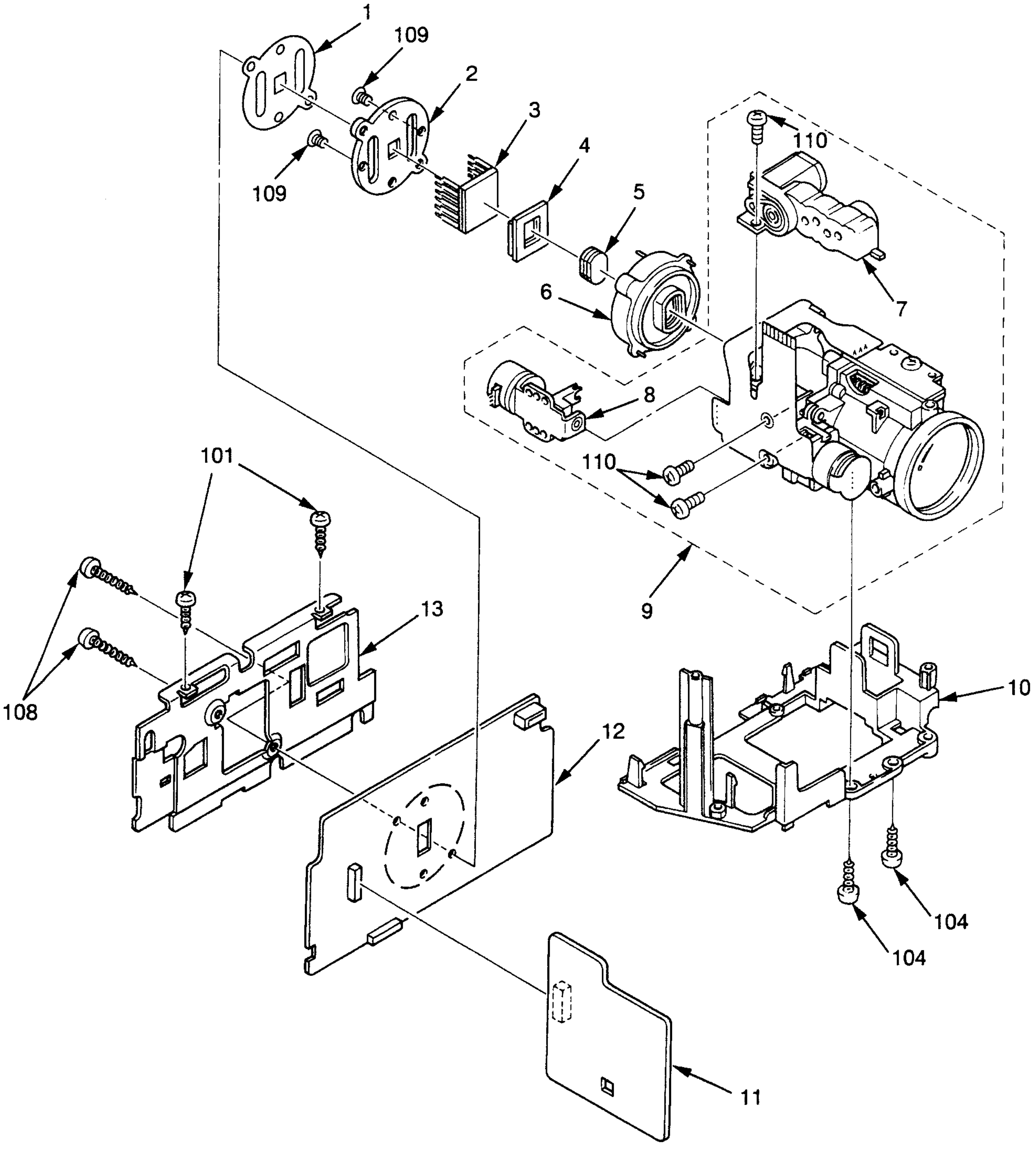
LOCATION	PARTS No.	DESCRIPTION
[VIEWFINDER]		
1	636 039 9167	BRACKET, VIEWFINDER
2	636 039 9365	PLATE SPRING, VIEWFINDER
3	636 039 9457	SLEEVE, SPACER, VIEWFINDER
4	636 039 8917	CABINET, RIGHT, VIEWFINDER
5 ⚠	636 040 2720	HARNESS, WIRE, VIEWFINDER
6	636 045 5016	COMPL, PWB, VF-1
7	636 040 2843	YOKE, DEFLECTION
8	636 034 7816	RING, VIEWFINDER
9	636 039 9440	RING, RUBBER, VIEWFINDER
10 ⚠	414 007 3009	CRT M01KQM07WB
11	636 039 8801	HOLDER, CRT, VIEWFINDER
12	636 045 5023	COMPL, VF-1
13	636 039 8894	CABINET, LEFT, VIEWFINDER
14	636 043 0020	COMPL, SLIDE, SLEEVE,VF
15	636 039 8825	OUTER SLEEVE, VIEWFINDER
16	636 039 8818	INNER SLEEVE, VIEWFINDER
17	636 039 8788	KNOB, VIEWFINDER
18	636 042 9307	HOLDER, LENS, VIEWFINDER
19	636 039 8726	LENS, VIEWFINDER
OR	636 030 2969	LENS, VIEWFINDER
20	636 039 8757	COVER, SLEEVE, VIEWFINDER
OR	636 030 2860	COVER, SLEEVE, VIEWFINDER
21	636 039 8764	COVER, EYE, VIEWFINDER
102	411 152 4301	SCR S-TPG PAN PCS 1.7X6
106	411 133 2401	SCR S-TPG PAN PCS 2X8



[CAMERA]

LOCATION	PARTS No.	DESCRIPTION
1	636 039 6388	INSULATOR
2	636 041 6536	MOUNTING LENS
3	409 304 8604	IC MN3726MFE, CCD
4	636 039 6395	SPACER
5	636 035 2162	OPTICAL FILTER
OR	636 039 7071	OPTICAL FILTER
6	636 041 6529	HOLDER, CCD
7	636 042 3770	MOTOR, ZOOM
8	636 041 2071	MOTOR, AF
9	645 004 8395	ASSY, LENS

LOCATION	PARTS No.	DESCRIPTION
10	636 039 7859	HOLDER, LENS
11	636 045 4392	COMPL, PWB, TC-1
12	636 045 4385	COMPL, PWB, CA-1
13	636 042 0885	HEAT SINK, A
101	411 151 9406	SCR S-TPG PAN PCS 1.7X4
104	411 137 3800	SCR S-TPG PAN PCS 2X5
108	411 132 3508	SCR S-TPG BIN 2X14
109	411 151 9307	SCR S-TPG FLT PCS 1.7X5
110	411 153 0609	SCR S-TPG PAN PCS 1.7X4



Electrical parts

NOTE;

1. Materials of Capacitors and Resistors are abbreviated as follows;

Resistors	
MT-FILM	Metallized Film Resistor
MT-GLAZE	Metallized Glaze Resistor
Capacitors	
MT-POLYEST	Metallized Polyester Capacitor
MT-COMPO	Metallized Composite Capacitor
TA-SOLID	Tantalum Solid Capacitor
NP-ELECT	Non-Polarized Electrolytic Capacitor
OS-SOLID	Aluminum Solid Capacitors with Organic Semiconductive Electrolytic Capacitor
CERAMIC	Ceramic Capacitor
ELECT	Electrolytic Capacitor
POLYESTER	Polyester Capacitor

2. Tolerance of Capacitor (10pF over) and Resistor are noted with follow symbols.

C ················ ± 0.25%   D ················ ± 0.5%   G ················ ± 2%   J ················ ± 5%
K ················ ± 10%   M ················ ± 20%   Z ················ +80%~ − 20%

3. Capacitors

U : µF   P : pF

4. Inductors

UH : µH   MH : mH

LOCATION	PARTS No.	DESCRIPTION		
COMPL,PWB,CA-1				
COMPL.No.	636 045 4385			
(TRIMMERS)				
CT901	645 005 0404	TRIMMER,20PF		
CT902	645 005 3924	TRIMMER,10PF		
(CAPACITORS)				
C9000	403 164 0204	CERAMIC	0.1U Z	25V
OR	403 279 0106	CERAMIC	0.1U Z	25V
OR	403 176 0209	CERAMIC	0.1U Z	25V
C9001	403 139 8303	TA-SOLID	4.7U M	10V
OR	403 090 7308	TA-SOLID	4.7U M	10V
C9002	403 164 0204	CERAMIC	0.1U Z	25V
OR	403 279 0106	CERAMIC	0.1U Z	25V
OR	403 176 0209	CERAMIC	0.1U Z	25V
C9003	403 164 0204	CERAMIC	0.1U Z	25V
OR	403 279 0106	CERAMIC	0.1U Z	25V
OR	403 176 0209	CERAMIC	0.1U Z	25V
C9004	403 164 0204	CERAMIC	0.1U Z	25V
OR	403 279 0106	CERAMIC	0.1U Z	25V
OR	403 176 0209	CERAMIC	0.1U Z	25V
C9007	403 164 0204	CERAMIC	0.1U Z	25V
OR	403 279 0106	CERAMIC	0.1U Z	25V
OR	403 176 0209	CERAMIC	0.1U Z	25V
C9008	403 167 2205	TA-SOLID	1U M	35V
OR	403 093 0306	TA-SOLID	1U M	35V
C9010	403 164 0204	CERAMIC	0.1U Z	25V
OR	403 279 0106	CERAMIC	0.1U Z	25V
OR	403 176 0209	CERAMIC	0.1U Z	25V
C9013	403 164 0204	CERAMIC	0.1U Z	25V
OR	403 279 0106	CERAMIC	0.1U Z	25V
OR	403 176 0209	CERAMIC	0.1U Z	25V
C9015	403 134 7400	CERAMIC	1U Z	16V
OR	403 176 9103	CERAMIC	1U Z	16V
OR	403 176 3200	CERAMIC	1U Z	25V
C9016	403 164 0204	CERAMIC	0.1U Z	25V
OR	403 279 0106	CERAMIC	0.1U Z	25V
OR	403 176 0209	CERAMIC	0.1U Z	25V
C9017	403 167 2205	TA-SOLID	1U M	35V
OR	403 093 0306	TA-SOLID	1U M	35V
C9018	403 167 2205	TA-SOLID	1U M	35V
OR	403 093 0306	TA-SOLID	1U M	35V
C9019	403 176 3200	CERAMIC	1U Z	25V
C9028	403 175 0705	ELECT	33U M	25V
OR	403 279 0700	ELECT	33U M	25V
C9029	403 175 4109	ELECT	22U M	16V
OR	403 279 0601	ELECT	22U M	16V
C9030	403 155 2101	CERAMIC	1500P K	50V
OR	403 235 5404	CERAMIC	1500P J	50V
C9031	403 164 0204	CERAMIC	0.1U Z	25V
OR	403 279 0106	CERAMIC	0.1U Z	25V
OR	403 176 0209	CERAMIC	0.1U Z	25V
C9041	403 164 0204	CERAMIC	0.1U Z	25V
OR	403 279 0106	CERAMIC	0.1U Z	25V
C9041	403 176 0209	CERAMIC	0.1U Z	25V
C9042	403 164 0204	CERAMIC	0.1U Z	25V
OR	403 279 0106	CERAMIC	0.1U Z	25V
OR	403 176 0209	CERAMIC	0.1U Z	25V
C9043	403 134 7400	CERAMIC	1U Z	16V
OR	403 176 9103	CERAMIC	1U Z	16V
OR	403 176 3200	CERAMIC	1U Z	25V
C9044	403 155 4204	CERAMIC	15P J	50V
OR	403 234 9601	CERAMIC	15P J	50V
OR	403 229 4406	CERAMIC	15P J	50V
C9045	403 164 0204	CERAMIC	0.1U Z	25V
OR	403 279 0106	CERAMIC	0.1U Z	25V
OR	403 176 0209	CERAMIC	0.1U Z	25V
C9046	403 155 4204	CERAMIC	15P J	50V
OR	403 234 9601	CERAMIC	15P J	50V
OR	403 229 4406	CERAMIC	15P J	50V
C9047	403 155 4204	CERAMIC	15P J	50V
OR	403 234 9601	CERAMIC	15P J	50V
OR	403 229 4406	CERAMIC	15P J	50V
C9048	403 157 2901	CERAMIC	47P J	50V
OR	403 235 0201	CERAMIC	47P J	50V
OR	403 229 5106	CERAMIC	47P J	50V
C9061	403 164 0204	CERAMIC	0.1U Z	25V
OR	403 279 0106	CERAMIC	0.1U Z	25V
OR	403 176 0209	CERAMIC	0.1U Z	25V
C9063	403 155 4204	CERAMIC	15P J	50V
OR	403 234 9601	CERAMIC	15P J	50V
OR	403 229 4406	CERAMIC	15P J	50V
C9064	403 258 4200	ELECT	22U M	6.3V
OR	403 277 5400	ELECT	22U M	6.3V
C9065	403 155 1807	CERAMIC	0.01U K	25V
OR	403 237 8502	CERAMIC	0.01V K	25V
OR	403 176 0100	CERAMIC	0.01U K	25V
C9068	403 199 9500	CERAMIC	0.15U Z	25V
OR	403 243 1900	CERAMIC	0.15U Z	25V
C9081	403 212 1603	CERAMIC	0.22U Z	25V
OR	403 278 9803	CERAMIC	0.22UZ	25V
OR	403 176 3309	CERAMIC	0.22U Z	25V
C9082	403 164 0204	CERAMIC	0.1U Z	25V
OR	403 279 0106	CERAMIC	0.1U Z	25V
OR	403 176 0209	CERAMIC	0.1U Z	25V
C9083	403 248 9703	ELECT	10U M	16V
OR	403 268 6508	ELECT	10U M	16V
C9091	403 155 1807	CERAMIC	0.01U K	25V
OR	403 237 8502	CERAMIC	0.01V K	25V
OR	403 176 0100	CERAMIC	0.01U K	25V
C9092	403 164 0204	CERAMIC	0.1U Z	25V
OR	403 279 0106	CERAMIC	0.1U Z	25V
OR	403 176 0209	CERAMIC	0.1U Z	25V
C9093	403 155 1807	CERAMIC	0.01U K	25V
OR	403 237 8502	CERAMIC	0.01V K	25V
OR	403 176 0100	CERAMIC	0.01U K	25V
C9094	403 155 1807	CERAMIC	0.01U K	25V
OR	403 237 8502	CERAMIC	0.01V K	25V
OR	403 176 0100	CERAMIC	0.01U K	25V

LOCATION	PARTS No.	DESCRIPTION			
C9095	403 134 7400	CERAMIC	1U	Z	16V
OR	403 176 9103	CERAMIC	1U	Z	16V
OR	403 176 3200	CERAMIC	1U	Z	25V
C9096	403 164 0204	CERAMIC	0.1U	Z	25V
OR	403 279 0106	CERAMIC	0.1U	Z	25V
OR	403 176 0209	CERAMIC	0.1U	Z	25V
C9097	403 155 1807	CERAMIC	0.01U	K	25V
OR	403 237 8502	CERAMIC	0.01V	K	25V
OR	403 176 0100	CERAMIC	0.01U	K	25V
C9098	403 134 7400	CERAMIC	1U	Z	16V
OR	403 176 9103	CERAMIC	1U	Z	16V
OR	403 176 3200	CERAMIC	1U	Z	25V
C9099	403 134 7400	CERAMIC	1U	Z	16V
OR	403 176 9103	CERAMIC	1U	Z	16V
OR	403 176 3200	CERAMIC	1U	Z	25V
C9101	403 164 0204	CERAMIC	0.1U	Z	25V
OR	403 279 0106	CERAMIC	0.1U	Z	25V
OR	403 176 0209	CERAMIC	0.1U	Z	25V
C9102	403 175 0606	ELECT	100U	M	6.3V
OR	403 279 0403	ELECT	100U	M	6.3V
C9103	403 135 4101	ELECT	470U	M	6.3V
C9107	403 164 0204	CERAMIC	0.1U	Z	25V
OR	403 279 0106	CERAMIC	0.1U	Z	25V
OR	403 176 0209	CERAMIC	0.1U	Z	25V
C9108	403 191 9409	TA-SOLID	6.8U	M	4V
OR	403 276 7009	TA-SOLID	6.8U	M	4V
C9109	403 134 7400	CERAMIC	1U	Z	16V
OR	403 176 9103	CERAMIC	1U	Z	16V
OR	403 176 3200	CERAMIC	1U	Z	25V
C9111	403 134 7400	CERAMIC	1U	Z	16V
OR	403 176 9103	CERAMIC	1U	Z	16V
OR	403 176 3200	CERAMIC	1U	Z	25V
C9112	403 164 0204	CERAMIC	0.1U	Z	25V
OR	403 279 0106	CERAMIC	0.1U	Z	25V
OR	403 176 0209	CERAMIC	0.1U	Z	25V
C9113	403 164 0204	CERAMIC	0.1U	Z	25V
OR	403 279 0106	CERAMIC	0.1U	Z	25V
OR	403 176 0209	CERAMIC	0.1U	Z	25V
C9114	403 164 0204	CERAMIC	0.1U	Z	25V
OR	403 279 0106	CERAMIC	0.1U	Z	25V
OR	403 176 0209	CERAMIC	0.1U	Z	25V
C9115	403 192 0207	TA-SOLID	4.7U	M	6.3V
OR	403 275 7406	TA-SOLID	4.7U	M	6.3V
C9116	403 175 4505	ELECT	47U	M	6.3V
OR	403 279 0502	ELECT	47U	M	6.3V
C9117	403 164 0204	CERAMIC	0.1U	Z	25V
OR	403 279 0106	CERAMIC	0.1U	Z	25V
OR	403 176 0209	CERAMIC	0.1U	Z	25V
C9118	403 134 7400	CERAMIC	1U	Z	16V
OR	403 176 9103	CERAMIC	1U	Z	16V
OR	403 176 3200	CERAMIC	1U	Z	25V
C9119	403 164 0204	CERAMIC	0.1U	Z	25V
OR	403 279 0106	CERAMIC	0.1U	Z	25V
OR	403 176 0209	CERAMIC	0.1U	Z	25V
C9122	403 164 0204	CERAMIC	0.1U	Z	25V
OR	403 279 0106	CERAMIC	0.1U	Z	25V
OR	403 176 0209	CERAMIC	0.1U	Z	25V
C9123	403 134 7400	CERAMIC	1U	Z	16V
OR	403 176 9103	CERAMIC	1U	Z	16V
OR	403 176 3200	CERAMIC	1U	Z	25V
C9126	403 164 0204	CERAMIC	0.1U	Z	25V
OR	403 279 0106	CERAMIC	0.1U	Z	25V
OR	403 176 0209	CERAMIC	0.1U	Z	25V
C9127	403 164 0204	CERAMIC	0.1U	Z	25V
OR	403 279 0106	CERAMIC	0.1U	Z	25V
OR	403 176 0209	CERAMIC	0.1U	Z	25V
C9128	403 134 7400	CERAMIC	1U	Z	16V
OR	403 176 9103	CERAMIC	1U	Z	16V
OR	403 176 3200	CERAMIC	1U	Z	25V
C9129	403 134 7400	CERAMIC	1U	Z	16V
OR	403 176 9103	CERAMIC	1U	Z	16V
OR	403 176 3200	CERAMIC	1U	Z	25V
C9131	403 134 7400	CERAMIC	1U	Z	16V
OR	403 176 9103	CERAMIC	1U	Z	16V
OR	403 176 3200	CERAMIC	1U	Z	25V
C9132	403 134 7400	CERAMIC	1U	Z	16V
OR	403 176 9103	CERAMIC	1U	Z	16V
OR	403 176 3200	CERAMIC	1U	Z	25V
C9133	403 134 7400	CERAMIC	1U	Z	16V
OR	403 176 9103	CERAMIC	1U	Z	16V
C9133	403 176 3200	CERAMIC	1U	Z	25V
C9134	403 134 7400	CERAMIC	1U	Z	16V
OR	403 176 9103	CERAMIC	1U	Z	16V
OR	403 176 3200	CERAMIC	1U	Z	25V
C9136	403 134 7400	CERAMIC	1U	Z	16V
OR	403 176 9103	CERAMIC	1U	Z	16V
OR	403 176 3200	CERAMIC	1U	Z	25V
C9198	403 113 3805	CERAMIC	1000P	K	50V
OR	403 224 5705	CERAMIC	1000P	K	50V
C9199	403 113 3805	CERAMIC	1000P	K	50V
OR	403 224 5705	CERAMIC	1000P	K	50V
C9231	403 155 1807	CERAMIC	0.01U	K	25V
OR	403 237 8502	CERAMIC	0.01V	K	25V
OR	403 176 0100	CERAMIC	0.01U	K	25V
C9232	403 134 7400	CERAMIC	1U	Z	16V
OR	403 176 9103	CERAMIC	1U	Z	16V
OR	403 176 3200	CERAMIC	1U	Z	25V
C9233	403 164 0204	CERAMIC	0.1U	Z	25V
OR	403 279 0106	CERAMIC	0.1U	Z	25V
OR	403 176 0209	CERAMIC	0.1U	Z	25V
C9234	403 113 3805	CERAMIC	1000P	K	50V
OR	403 224 5705	CERAMIC	1000P	K	50V
C9235	403 145 9905	CERAMIC	22P	J	50V
OR	403 224 5507	CERAMIC	22P	J	50V
OR	403 229 4703	CERAMIC	22P	J	50V
C9236	403 164 0204	CERAMIC	0.1U	Z	25V
OR	403 279 0106	CERAMIC	0.1U	Z	25V
OR	403 176 0209	CERAMIC	0.1U	Z	25V
C9237	403 164 0204	CERAMIC	0.1U	Z	25V
OR	403 279 0106	CERAMIC	0.1U	Z	25V
OR	403 176 0209	CERAMIC	0.1U	Z	25V
C9238	403 145 9905	CERAMIC	22P	J	50V
OR	403 224 5507	CERAMIC	22P	J	50V
OR	403 229 4703	CERAMIC	22P	J	50V
C9239	403 113 3805	CERAMIC	1000P	K	50V
OR	403 224 5705	CERAMIC	1000P	K	50V
C9241	403 157 1904	CERAMIC	10P	D	50V
OR	403 234 9502	CERAMIC	10P	D	50V
OR	403 229 4208	CERAMIC	10P	D	50V
C9243	403 155 1807	CERAMIC	0.01U	K	25V
OR	403 237 8502	CERAMIC	0.01V	K	25V
OR	403 176 0100	CERAMIC	0.01U	K	25V
C9244	403 157 3601	CERAMIC	100P	J	50V
OR	403 235 0607	CERAMIC	100P	J	50V
OR	403 229 5700	CERAMIC	100P	J	50V
C9272	403 164 0204	CERAMIC	0.1U	Z	25V
OR	403 279 0106	CERAMIC	0.1U	Z	25V
OR	403 176 0209	CERAMIC	0.1U	Z	25V
C9273	403 164 0204	CERAMIC	0.1U	Z	25V
OR	403 279 0106	CERAMIC	0.1U	Z	25V
OR	403 176 0209	CERAMIC	0.1U	Z	25V

(DIODES)

D9015	407 113 5609	DIODE DSH015-TL
OR	407 134 7200	DIODE MA141K-TX
D9016	407 156 3204	DIODE MA721-TX
D9041	407 113 5609	DIODE DSH015-TL
OR	407 134 7200	DIODE MA141K-TX
D9042	407 113 5609	DIODE DSH015-TL
OR	407 134 7200	DIODE MA141K-TX
D9043	407 113 5609	DIODE DSH015-TL
OR	407 134 7200	DIODE MA141K-TX
D9104	407 106 1601	DIODE DCG015-TL
OR	407 130 4401	DIODE DAN202U-T106
OR	407 134 7408	DIODE MA141WK-TX
D9105	407 156 3204	DIODE MA721-TX

(INTEGRATED CIRCUITS)

IC912	409 328 7805	IC MN3112SA-E1
IC913	409 331 1203	IC AN2017NS
IC914	409 294 9209	IC MN5151H-EF
IC915	409 180 1300	IC SC14S69FEL
OR	409 155 7405	IC TC4S69F(TE85L)
IC916	409 307 8304	IC MN5177-EF
IC917	409 180 1300	IC SC14S69FEL
OR	409 155 7405	IC TC4S69F(TE85L)
IC918	409 142 2000	IC LA6358NM-T1
IC921	409 294 9407	IC MN3861SA-E1
IC922	409 328 7706	IC AN2145NFHP
IC924	409 294 9605	IC AN2458SH-E1

LOCATION	PARTS No.	DESCRIPTION
IC925	409 245 4208	IC MSM6524GS-VKR2
(COILS)		
L9001	645 001 8589	INDUCTOR,600 OHM
L9002	645 001 8589	INDUCTOR,600 OHM
L9003	645 001 8589	INDUCTOR,600 OHM
L9272	636 003 2415	HF CHOKE,12UHJ
OR	636 027 8608	COIL,INDUCTOR 12UHJ
(TRANSISTORS)		
Q9001	405 079 6302	TR 2SC4399-5-TL
Q9010	405 077 2207	TR 2SA1622-6-TL
OR	405 092 4200	TR 2SA1576-R-T106
OR	405 102 5500	TR 2SB1218A-R-TX
Q9014	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q9100	405 079 6302	TR 2SC4399-5-TL
Q9101	405 129 2308	TR UMZ1N-TL
OR	405 106 4806	TR XP4601-TW
Q9102	405 078 5801	TR 2SA1676-TL
OR	405 096 1106	TR DTA144EU-T106
OR	405 102 3605	TR UN5113-TX
Q9103	405 106 4608	TR XP4401-TW
OR	405 129 2100	TR UMT1N-TL
Q9104	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q9105	405 077 2207	TR 2SA1622-6-TL
OR	405 092 4200	TR 2SA1576-R-T106
OR	405 102 5500	TR 2SB1218A-R-TX
Q9106	405 106 4707	TR XP4501-TW
OR	405 129 2209	TR UMX1N-TL
Q9108	405 077 2207	TR 2SA1622-6-TL
OR	405 092 4200	TR 2SA1576-R-T106
OR	405 102 5500	TR 2SB1218A-R-TX
Q9109	405 079 6302	TR 2SC4399-5-TL
Q9110	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q9112	405 106 4608	TR XP4401-TW
OR	405 129 2100	TR UMT1N-TL
Q9113	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q9114	405 077 2207	TR 2SA1622-6-TL
OR	405 092 4200	TR 2SA1576-R-T106
OR	405 102 5500	TR 2SB1218A-R-TX
(RESISTOR PACKS)		
RB902	645 001 6868	R-NETWORK,10KX2 0.063W
OR	636 037 5987	CHIP R-NETWORK,10KX2
RB903	645 001 3195	R-NETWORK,10KX4 0.063W
RB904	645 001 3188	R-NETWORK,1KX4 0.063W
RB905	645 001 6745	R-NETWORK,1KX2 0.063W
OR	636 037 5970	CHIP R-NETWORK,1KX2
(RESISTORS)		
R9001	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9002	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9005	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R9009	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9010	401 105 0603	MT-GLAZE 10K JA 1/16W
R9018	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R9019	401 105 1105	MT-GLAZE 12K JA 1/16W
R9020	401 105 8005	MT-GLAZE 1M JA 1/16W
R9021	401 105 2904	MT-GLAZE 22K JA 1/16W
R9022	401 105 3901	MT-GLAZE 33 JA 1/16W
R9023	401 105 3901	MT-GLAZE 33 JA 1/16W
R9041	401 105 2904	MT-GLAZE 22K JA 1/16W
R9042	401 105 2102	MT-GLAZE 18K JA 1/16W
R9043	401 105 7305	MT-GLAZE 820 JA 1/16W
R9044	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9045	401 105 7305	MT-GLAZE 820 JA 1/16W
R9046	401 148 6006	MT-GLAZE 2.2 JA 1/16W
R9047	401 105 0603	MT-GLAZE 10K JA 1/16W
R9048	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R9049	401 105 6506	MT-GLAZE 680 JA 1/16W
R9051	401 105 2706	MT-GLAZE 220 JA 1/16W
R9053	401 105 8005	MT-GLAZE 1M JA 1/16W

LOCATION	PARTS No.	DESCRIPTION
R9054	401 105 7305	MT-GLAZE 820 JA 1/16W
R9055	401 105 3901	MT-GLAZE 33 JA 1/16W
R9056	401 105 0900	MT-GLAZE 120 JA 1/16W
R9057	401 105 0900	MT-GLAZE 120 JA 1/16W
R9058	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9061	401 148 6006	MT-GLAZE 2.2 JA 1/16W
R9062	401 105 0603	MT-GLAZE 10K JA 1/16W
R9063	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R9065	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9068	401 105 0405	MT-GLAZE 100 JA 1/16W
R9071	401 105 0603	MT-GLAZE 10K JA 1/16W
R9073	401 105 2706	MT-GLAZE 220 JA 1/16W
R9074	401 105 0603	MT-GLAZE 10K JA 1/16W
R9075	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R9076	401 105 8005	MT-GLAZE 1M JA 1/16W
R9077	401 105 2706	MT-GLAZE 220 JA 1/16W
R9078	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R9079	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9080	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9081	401 105 0306	MT-GLAZE 10 JA 1/16W
R9082	401 105 0603	MT-GLAZE 10K JA 1/16W
R9091	401 105 0306	MT-GLAZE 10 JA 1/16W
R9092	401 105 0504	MT-GLAZE 1K JA 1/16W
R9093	401 105 0504	MT-GLAZE 1K JA 1/16W
R9094	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R9095	401 105 0504	MT-GLAZE 1K JA 1/16W
R9096	401 105 0504	MT-GLAZE 1K JA 1/16W
R9097	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R9106	401 105 1600	MT-GLAZE 15K JA 1/16W
R9107	401 105 2904	MT-GLAZE 22K JA 1/16W
R9109	401 105 0603	MT-GLAZE 10K JA 1/16W
R9111	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9112	401 105 3000	MT-GLAZE 220K JA 1/16W
R9114	401 105 3406	MT-GLAZE 27K JA 1/16W
R9115	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R9116	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R9117	401 105 4700	MT-GLAZE 39K JA 1/16W
R9118	401 105 5400	MT-GLAZE 47K JA 1/16W
R9119	401 105 2904	MT-GLAZE 22K JA 1/16W
R9120	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9121	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9122	401 105 2904	MT-GLAZE 22K JA 1/16W
R9123	401 105 0504	MT-GLAZE 1K JA 1/16W
R9124	401 105 0603	MT-GLAZE 10K JA 1/16W
R9125	401 105 0603	MT-GLAZE 10K JA 1/16W
R9126	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R9127	401 105 0504	MT-GLAZE 1K JA 1/16W
R9128	401 105 4205	MT-GLAZE 33K JA 1/16W
R9130	401 105 1105	MT-GLAZE 12K JA 1/16W
R9131	401 105 3406	MT-GLAZE 27K JA 1/16W
R9133	401 105 0504	MT-GLAZE 1K JA 1/16W
R9135	401 105 4205	MT-GLAZE 33K JA 1/16W
R9136	401 105 0603	MT-GLAZE 10K JA 1/16W
R9137	401 105 0603	MT-GLAZE 10K JA 1/16W
R9138	401 105 4205	MT-GLAZE 33K JA 1/16W
R9140	401 105 2904	MT-GLAZE 22K JA 1/16W
R9141	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R9142	401 105 2904	MT-GLAZE 22K JA 1/16W
R9143	401 105 2904	MT-GLAZE 22K JA 1/16W
R9144	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R9145	401 105 2904	MT-GLAZE 22K JA 1/16W
R9147	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R9148	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9149	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9150	401 105 1105	MT-GLAZE 12K JA 1/16W
R9152	401 105 3406	MT-GLAZE 27K JA 1/16W
R9154	401 113 6703	MT-GLAZE 9.1K JA 1/16W
R9155	401 105 1600	MT-GLAZE 15K JA 1/16W
R9156	401 167 0306	MT-FILM 10K DU 1/16W
R9157	401 105 4700	MT-GLAZE 39K JA 1/16W
R9159	401 105 2904	MT-GLAZE 22K JA 1/16W
R9162	401 105 8203	MT-GLAZE 68K JA 1/16W
R9165	401 105 0603	MT-GLAZE 10K JA 1/16W
R9166	401 114 0502	MT-GLAZE 2.2M JA 1/16W
R9167	401 105 0603	MT-GLAZE 10K JA 1/16W
R9169	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9172	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9173	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R9174	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R9175	401 105 6001	MT-GLAZE 5.6K JA 1/16W

LOCATION	PARTS No.	DESCRIPTION
R9176	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R9177	401 105 5400	MT-GLAZE 47K JA 1/16W
R9178	401 105 5400	MT-GLAZE 47K JA 1/16W
R9181	401 105 0603	MT-GLAZE 10K JA 1/16W
R9182	401 114 0908	MT-GLAZE 3.3M JA 1/16W
R9183	401 105 0603	MT-GLAZE 10K JA 1/16W
R9185	401 105 2102	MT-GLAZE 18K JA 1/16W
R9187	401 105 4205	MT-GLAZE 33K JA 1/16W
R9190	401 105 0603	MT-GLAZE 10K JA 1/16W
R9191	401 105 0603	MT-GLAZE 10K JA 1/16W
R9192	401 105 0603	MT-GLAZE 10K JA 1/16W
R9194	401 105 0405	MT-GLAZE 100 JA 1/16W
R9196	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R9197	401 105 1105	MT-GLAZE 12K JA 1/16W
R9199	401 167 1204	MT-FILM 27K DU 1/16W
R9201	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R9231	401 105 0306	MT-GLAZE 10 JA 1/16W
R9232	401 105 4205	MT-GLAZE 33K JA 1/16W
R9234	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R9235	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R9236	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R9237	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R9238	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R9239	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R9240	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9241	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R9242	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R9245	401 105 2904	MT-GLAZE 22K JA 1/16W
R9247	401 105 4700	MT-GLAZE 39K JA 1/16W
R9248	401 105 0504	MT-GLAZE 1K JA 1/16W
R9249	401 105 2904	MT-GLAZE 22K JA 1/16W
R9250	401 105 5905	MT-GLAZE 560 JA 1/16W
R9251	401 105 2706	MT-GLAZE 220 JA 1/16W
R9252	401 105 0504	MT-GLAZE 1K JA 1/16W
R9271	401 105 4205	MT-GLAZE 33K JA 1/16W
R9272	401 105 2904	MT-GLAZE 22K JA 1/16W
R9273	401 105 4205	MT-GLAZE 33K JA 1/16W
R9274	401 105 2904	MT-GLAZE 22K JA 1/16W
R9275	401 105 2904	MT-GLAZE 22K JA 1/16W
R9276	401 105 3406	MT-GLAZE 27K JA 1/16W
R9277	401 105 3406	MT-GLAZE 27K JA 1/16W
R9278	401 105 0603	MT-GLAZE 10K JA 1/16W
R9279	401 105 0603	MT-GLAZE 10K JA 1/16W
R9281	401 105 0603	MT-GLAZE 10K JA 1/16W
R9282	401 105 1600	MT-GLAZE 15K JA 1/16W
R9283	401 105 2904	MT-GLAZE 22K JA 1/16W
R9284	401 105 0504	MT-GLAZE 1K JA 1/16W
R9285	401 158 4009	MT-GLAZE 3.3 JA 1/16W
R9295	401 105 0603	MT-GLAZE 10K JA 1/16W
R9296	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9297	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9298	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9299	401 105 2102	MT-GLAZE 18K JA 1/16W
(FILTERS)		
T9001	645 000 3134	FILTER,LP 4MHZ
T9002	645 000 3141	FILTER,LP 4MHZ
(VARIABLE CAPACITOR)		
VC902	407 160 4709	VA MA366(E)-SAN1-TX
(VARIABLE RESISTORS)		
VR902	636 019 8074	SVR 47K
OR	636 039 8634	VR,SEMI 47KB
OR	645 000 0270	VR,SEMI 47KS
OR	636 036 2352	VR,SEMI 47KB
VR904	636 019 8074	SVR 47K
OR	636 039 8634	VR,SEMI 47KB
OR	645 000 0270	VR,SEMI 47KS
OR	636 036 2352	VR,SEMI 47KB
(CRYSTAL DEVICES)		
X9001	645 000 3158	OSC,CRYSTAL 19.3125MHZ
X9002	636 036 6862	CRYSTAL,17MHZ
COMPL,PWB,CP-1		
COMPL.No.	636 045 4736	
(MISCELLANEOUSES)		
A3351	636 040 1051	REMOCON RECEIVER

LOCATION	PARTS No.	DESCRIPTION
CN104	636 029 9092	AV JACK,RCA
(TRIMMER)		
CT321	645 005 0411	TRIMMER,30PF
(CAPACITORS)		
C1001	403 248 9703	ELECT 10U M 16V
OR	403 268 6508	ELECT 10U M 16V
C1002	403 248 9703	ELECT 10U M 16V
OR	403 268 6508	ELECT 10U M 16V
C1005	403 069 1702	CERAMIC 1000P K 50V
OR	403 069 2204	CERAMIC 1000P K 50V
OR	403 069 2105	CERAMIC 1000P K 50V
C1008	403 162 3900	ELECT 47U M 4V
OR	403 279 0205	ELECT 47U M 4V
C1009	403 193 7601	ELECT 220U M 6.3V
OR	403 038 6707	ELECT 220U M 6.3V
C1010	403 258 4200	ELECT 22U M 6.3V
OR	403 277 5400	ELECT 22U M 6.3V
C1016	403 248 9703	ELECT 10U M 16V
OR	403 268 6508	ELECT 10U M 16V
C1017	403 248 9703	ELECT 10U M 16V
OR	403 268 6508	ELECT 10U M 16V
C1020	403 026 7501	CERAMIC 470P J 50V
OR	403 133 9009	CERAMIC 470P J 50V
OR	403 108 9300	CERAMIC 470P J 50V
C1021	403 069 1702	CERAMIC 1000P K 50V
OR	403 069 2204	CERAMIC 1000P K 50V
OR	403 069 2105	CERAMIC 1000P K 50V
C1022	403 193 7601	ELECT 220U M 6.3V
OR	403 038 6707	ELECT 220U M 6.3V
C1026	403 018 7403	CERAMIC 220P J 50V
OR	403 116 0702	CERAMIC 220P J 50V
OR	403 108 9201	CERAMIC 220P J 50V
C1027	403 162 3900	ELECT 47U M 4V
OR	403 279 0205	ELECT 47U M 4V
C1028	403 258 4200	ELECT 22U M 6.3V
OR	403 277 5400	ELECT 22U M 6.3V
C1030	403 023 4404	CERAMIC 330P J 50V
OR	403 023 5500	CERAMIC 330P J 50V
OR	403 023 5203	CERAMIC 330P J 50V
C1031	403 024 7107	CERAMIC 390P J 50V
OR	403 228 9907	CERAMIC 390P J 50V
OR	403 153 2400	CERAMIC 390P J 50V
C1032	403 207 0505	CERAMIC 0.47U Z 16V
OR	403 278 9506	CERAMIC 0.47U Z 16V
C1033	403 018 0503	CERAMIC 22P J 50V
OR	403 018 3207	CERAMIC 22P J 50V
OR	403 018 2408	CERAMIC 22P J 50V
C1034	403 207 0307	CERAMIC 1U Z 16V
OR	403 278 9605	CERAMIC 1U Z 16V
OR	403 196 3105	CERAMIC 1U Z 16V
C1035	403 258 4200	ELECT 22U M 6.3V
OR	403 277 5400	ELECT 22U M 6.3V
C1036	403 207 0307	CERAMIC 1U Z 16V
OR	403 278 9605	CERAMIC 1U Z 16V
OR	403 196 3105	CERAMIC 1U Z 16V
C1037	403 069 1702	CERAMIC 1000P K 50V
OR	403 069 2204	CERAMIC 1000P K 50V
OR	403 069 2105	CERAMIC 1000P K 50V
C1038	403 207 0307	CERAMIC 1U Z 16V
OR	403 278 9605	CERAMIC 1U Z 16V
OR	403 196 3105	CERAMIC 1U Z 16V
C1039	403 248 9703	ELECT 10U M 16V
OR	403 268 6508	ELECT 10U M 16V
C1041	403 069 5601	CERAMIC 0.01U K 50V
OR	403 069 6103	CERAMIC 0.01U K 50V
OR	403 069 6004	CERAMIC 0.01U K 50V
C1042	403 022 8205	CERAMIC 33P J 50V
OR	403 023 0802	CERAMIC 33P J 50V
OR	403 023 0109	CERAMIC 33P J 50V
C1043	403 207 0307	CERAMIC 1U Z 16V
OR	403 278 9605	CERAMIC 1U Z 16V
OR	403 196 3105	CERAMIC 1U Z 16V
C1044	403 020 0409	CERAMIC 27P J 50V
OR	403 020 2106	CERAMIC 27P J 50V
OR	403 020 1604	CERAMIC 27P J 50V
C1047	403 008 7406	CERAMIC 10P D 50V
OR	403 008 9905	CERAMIC 10P D 50V
OR	403 008 9202	CERAMIC 10P D 50V

LOCATION	PARTS No.	DESCRIPTION		
C1048	403 022 8205	CERAMIC	33P J	50V
OR	403 023 0802	CERAMIC	33P J	50V
OR	403 023 0109	CERAMIC	33P J	50V
C1049	403 009 5708	CERAMIC	100P J	50V
OR	403 009 7504	CERAMIC	100P J	50V
OR	403 009 7009	CERAMIC	100P J	50V
C1051	403 033 4500	CERAMIC	82P J	50V
OR	403 115 8907	CERAMIC	82P J	50V
OR	403 108 8808	CERAMIC	82P J	50V
C1053	403 008 7406	CERAMIC	10P D	50V
OR	403 008 9905	CERAMIC	10P D	50V
OR	403 008 9202	CERAMIC	10P D	50V
C1054	403 026 2803	CERAMIC	47P J	50V
OR	403 115 8105	CERAMIC	47P J	50V
OR	403 108 8600	CERAMIC	47P J	50V
C1055	403 026 2803	CERAMIC	47P J	50V
OR	403 115 8105	CERAMIC	47P J	50V
OR	403 108 8600	CERAMIC	47P J	50V
C1056	403 013 3004	CERAMIC	150P J	50V
OR	403 115 9607	CERAMIC	150P J	50V
OR	403 108 9003	CERAMIC	150P J	50V
C1057	403 248 9703	ELECT	10U M	16V
OR	403 268 6508	ELECT	10U M	16V
C1060	403 033 4500	CERAMIC	82P J	50V
OR	403 115 8907	CERAMIC	82P J	50V
OR	403 108 8808	CERAMIC	82P J	50V
C1061	403 011 4904	CERAMIC	120P J	50V
OR	403 114 1701	CERAMIC	120P J	50V
OR	403 108 8907	CERAMIC	120P J	50V
C1062	403 022 8205	CERAMIC	33P J	50V
OR	403 023 0802	CERAMIC	33P J	50V
OR	403 023 0109	CERAMIC	33P J	50V
C1064	403 033 4500	CERAMIC	82P J	50V
OR	403 115 8907	CERAMIC	82P J	50V
OR	403 108 8808	CERAMIC	82P J	50V
C1065	403 022 8205	CERAMIC	33P J	50V
OR	403 023 0802	CERAMIC	33P J	50V
OR	403 023 0109	CERAMIC	33P J	50V
C1066	403 022 8205	CERAMIC	33P J	50V
OR	403 023 0802	CERAMIC	33P J	50V
OR	403 023 0109	CERAMIC	33P J	50V
C1067	403 193 7601	ELECT	220U M	6.3V
OR	403 038 6707	ELECT	220U M	6.3V
C1070	403 130 3604	CERAMIC	0.047U K	25V
OR	403 150 5008	CERAMIC	0.047U K	25V
C1071	403 018 0503	CERAMIC	22P J	50V
OR	403 018 3207	CERAMIC	22P J	50V
OR	403 018 2408	CERAMIC	22P J	50V
C1091	403 023 4404	CERAMIC	330P J	50V
OR	403 023 5500	CERAMIC	330P J	50V
OR	403 023 5203	CERAMIC	330P J	50V
C1101	403 207 0307	CERAMIC	1U Z	16V
OR	403 278 9605	CERAMIC	1U Z	16V
OR	403 196 3105	CERAMIC	1U Z	16V
C1102	403 069 1702	CERAMIC	1000P K	50V
OR	403 069 2204	CERAMIC	1000P K	50V
OR	403 069 2105	CERAMIC	1000P K	50V
C1105	403 069 1702	CERAMIC	1000P K	50V
OR	403 069 2204	CERAMIC	1000P K	50V
OR	403 069 2105	CERAMIC	1000P K	50V
C1108	403 068 0409	CERAMIC	0.1U Z	25V
OR	403 116 2508	CERAMIC	0.1U Z	25V
OR	403 109 7909	CERAMIC	0.1U Z	25V
C1113	403 068 0409	CERAMIC	0.1U Z	25V
OR	403 116 2508	CERAMIC	0.1U Z	25V
OR	403 109 7909	CERAMIC	0.1U Z	25V
C1114	403 068 0409	CERAMIC	0.1U Z	25V
OR	403 116 2508	CERAMIC	0.1U Z	25V
OR	403 109 7909	CERAMIC	0.1U Z	25V
C1116	403 020 0409	CERAMIC	27P J	50V
OR	403 020 2106	CERAMIC	27P J	50V
OR	403 020 1604	CERAMIC	27P J	50V
C1117	403 008 7406	CERAMIC	10P D	50V
OR	403 008 9905	CERAMIC	10P D	50V
OR	403 008 9202	CERAMIC	10P D	50V
C1118	403 032 2309	CERAMIC	75P J	50V
OR	403 278 9407	CERAMIC	75P J	50V
OR	403 153 2103	CERAMIC	75P J	50V
C1119	403 068 0409	CERAMIC	0.1U Z	25V
OR	403 116 2508	CERAMIC	0.1U Z	25V

LOCATION	PARTS No.	DESCRIPTION		
C1119	403 109 7909	CERAMIC	0.1U Z	25V
C1121	403 033 4500	CERAMIC	82P J	50V
OR	403 115 8907	CERAMIC	82P J	50V
OR	403 108 8808	CERAMIC	82P J	50V
C1122	403 014 3409	CERAMIC	18P J	50V
OR	403 014 5403	CERAMIC	18P J	50V
OR	403 014 4802	CERAMIC	18P J	50V
C1123	403 020 0409	CERAMIC	27P J	50V
OR	403 020 2106	CERAMIC	27P J	50V
OR	403 020 1604	CERAMIC	27P J	50V
C1125	403 024 2102	CERAMIC	39P J	50V
OR	403 024 4205	CERAMIC	39P J	50V
OR	403 024 3505	CERAMIC	39P J	50V
C1126	403 028 4102	CERAMIC	56P J	50V
OR	403 028 6908	CERAMIC	56P J	50V
OR	403 028 6007	CERAMIC	56P J	50V
C1127	403 026 2803	CERAMIC	47P J	50V
OR	403 115 8105	CERAMIC	47P J	50V
OR	403 108 8600	CERAMIC	47P J	50V
C1128	403 024 2102	CERAMIC	39P J	50V
OR	403 024 4205	CERAMIC	39P J	50V
OR	403 024 3505	CERAMIC	39P J	50V
C1129	403 008 7406	CERAMIC	10P D	50V
OR	403 008 9905	CERAMIC	10P D	50V
OR	403 008 9202	CERAMIC	10P D	50V
C1130	403 032 2309	CERAMIC	75P J	50V
OR	403 278 9407	CERAMIC	75P J	50V
OR	403 153 2103	CERAMIC	75P J	50V
C1132	403 009 5708	CERAMIC	100P J	50V
OR	403 009 7504	CERAMIC	100P J	50V
OR	403 009 7009	CERAMIC	100P J	50V
C1133	403 020 0409	CERAMIC	27P J	50V
OR	403 020 2106	CERAMIC	27P J	50V
OR	403 020 1604	CERAMIC	27P J	50V
C1201	403 069 5601	CERAMIC	0.01U K	50V
OR	403 069 6103	CERAMIC	0.01U K	50V
OR	403 069 6004	CERAMIC	0.01U K	50V
C1203	403 071 8102	CERAMIC	2200P K	50V
OR	403 071 8706	CERAMIC	2200P K	50V
OR	403 071 8508	CERAMIC	2200P K	50V
C1204	403 256 0600	ELECT	4.7U M	25V
OR	403 277 5301	ELECT	4.7U M	25V
C1205	403 207 0307	CERAMIC	1U Z	16V
OR	403 278 9605	CERAMIC	1U Z	16V
OR	403 196 3105	CERAMIC	1U Z	16V
C1207	403 069 1702	CERAMIC	1000P K	50V
OR	403 069 2204	CERAMIC	1000P K	50V
OR	403 069 2105	CERAMIC	1000P K	50V
C1208	403 028 4102	CERAMIC	56P J	50V
OR	403 028 6908	CERAMIC	56P J	50V
OR	403 028 6007	CERAMIC	56P J	50V
C1209	403 010 8507	CERAMIC	12P J	50V
OR	403 011 0708	CERAMIC	12P J	50V
OR	403 011 0104	CERAMIC	12P J	50V
C1210	403 207 0307	CERAMIC	1U Z	16V
OR	403 278 9605	CERAMIC	1U Z	16V
OR	403 196 3105	CERAMIC	1U Z	16V
C1211	403 068 0409	CERAMIC	0.1U Z	25V
OR	403 116 2508	CERAMIC	0.1U Z	25V
OR	403 109 7909	CERAMIC	0.1U Z	25V
C1212	403 068 0409	CERAMIC	0.1U Z	25V
OR	403 116 2508	CERAMIC	0.1U Z	25V
OR	403 109 7909	CERAMIC	0.1U Z	25V
C1213	403 008 7406	CERAMIC	10P D	50V
OR	403 008 9905	CERAMIC	10P D	50V
OR	403 008 9202	CERAMIC	10P D	50V
C1214	403 068 0409	CERAMIC	0.1U Z	25V
OR	403 116 2508	CERAMIC	0.1U Z	25V
OR	403 109 7909	CERAMIC	0.1U Z	25V
C1217	403 008 7406	CERAMIC	10P D	50V
OR	403 008 9905	CERAMIC	10P D	50V
OR	403 008 9202	CERAMIC	10P D	50V
C1219	403 069 1702	CERAMIC	1000P K	50V
OR	403 069 2204	CERAMIC	1000P K	50V
OR	403 069 2105	CERAMIC	1000P K	50V
C1220	403 069 5601	CERAMIC	0.01U K	50V
OR	403 069 6103	CERAMIC	0.01U K	50V
OR	403 069 6004	CERAMIC	0.01U K	50V
C1221	403 069 1702	CERAMIC	1000P K	50V
OR	403 069 2204	CERAMIC	1000P K	50V

LOCATION	PARTS No.	DESCRIPTION			
C1221	403 069 2105	CERAMIC	1000P	K	50V
C1222	403 069 5601	CERAMIC	0.01U	K	50V
OR	403 069 6103	CERAMIC	0.01U	K	50V
OR	403 069 6004	CERAMIC	0.01U	K	50V
C1223	403 009 5708	CERAMIC	100P	J	50V
OR	403 009 7504	CERAMIC	100P	J	50V
OR	403 009 7009	CERAMIC	100P	J	50V
C1228	403 069 1702	CERAMIC	1000P	K	50V
OR	403 069 2204	CERAMIC	1000P	K	50V
OR	403 069 2105	CERAMIC	1000P	K	50V
C1229	403 069 5601	CERAMIC	0.01U	K	50V
OR	403 069 6103	CERAMIC	0.01U	K	50V
OR	403 069 6004	CERAMIC	0.01U	K	50V
C1230	403 028 4102	CERAMIC	56P	J	50V
OR	403 028 6908	CERAMIC	56P	J	50V
OR	403 028 6007	CERAMIC	56P	J	50V
C1231	403 024 2102	CERAMIC	39P	J	50V
OR	403 024 4205	CERAMIC	39P	J	50V
OR	403 024 3505	CERAMIC	39P	J	50V
C1232	403 010 8507	CERAMIC	12P	J	50V
OR	403 011 0708	CERAMIC	12P	J	50V
OR	403 011 0104	CERAMIC	12P	J	50V
C1233	403 069 1702	CERAMIC	1000P	K	50V
OR	403 069 2204	CERAMIC	1000P	K	50V
OR	403 069 2105	CERAMIC	1000P	K	50V
C1234	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C1235	403 020 0409	CERAMIC	27P	J	50V
OR	403 020 2106	CERAMIC	27P	J	50V
OR	403 020 1604	CERAMIC	27P	J	50V
C1236	403 033 4500	CERAMIC	82P	J	50V
OR	403 115 8907	CERAMIC	82P	J	50V
OR	403 108 8808	CERAMIC	82P	J	50V
C1237	403 024 2102	CERAMIC	39P	J	50V
OR	403 024 4205	CERAMIC	39P	J	50V
OR	403 024 3505	CERAMIC	39P	J	50V
C1238	403 011 4904	CERAMIC	120P	J	50V
OR	403 114 1701	CERAMIC	120P	J	50V
OR	403 108 8907	CERAMIC	120P	J	50V
C1239	403 028 4102	CERAMIC	56P	J	50V
OR	403 028 6908	CERAMIC	56P	J	50V
OR	403 028 6007	CERAMIC	56P	J	50V
C1241	403 014 9203	CERAMIC	180P	J	50V
OR	403 116 0009	CERAMIC	180P	J	50V
OR	403 108 9102	CERAMIC	180P	J	50V
C1242	403 022 8205	CERAMIC	33P	J	50V
OR	403 023 0802	CERAMIC	33P	J	50V
OR	403 023 0109	CERAMIC	33P	J	50V
C1244	403 024 2102	CERAMIC	39P	J	50V
OR	403 024 4205	CERAMIC	39P	J	50V
OR	403 024 3505	CERAMIC	39P	J	50V
C1302	403 032 2309	CERAMIC	75P	J	50V
OR	403 278 9407	CERAMIC	75P	J	50V
OR	403 153 2103	CERAMIC	75P	J	50V
C1303	403 020 5503	CERAMIC	270P	J	50V
OR	403 210 0806	CERAMIC	270P	J	50V
OR	403 153 2301	CERMAIC	270P	J	50V
C1304	403 071 8102	CERAMIC	2200P	K	50V
OR	403 071 8706	CERAMIC	2200P	K	50V
OR	403 071 8508	CERAMIC	2200P	K	50V
C1305	403 023 8105	CERAMIC	36P	J	50V
OR	403 115 7504	CERAMIC	36P	J	50V
OR	403 115 7603	CERAMIC	36P	J	50V
C1306	403 020 5503	CERAMIC	270P	J	50V
OR	403 210 0806	CERAMIC	270P	J	50V
OR	403 153 2301	CERMAIC	270P	J	50V
C1307	403 069 5601	CERAMIC	0.01U	K	50V
OR	403 069 6103	CERAMIC	0.01U	K	50V
OR	403 069 6004	CERAMIC	0.01U	K	50V
C1308	403 071 8102	CERAMIC	2200P	K	50V
OR	403 071 8706	CERAMIC	2200P	K	50V
OR	403 071 8508	CERAMIC	2200P	K	50V
C1309	403 018 0503	CERAMIC	22P	J	50V
OR	403 018 3207	CERAMIC	22P	J	50V
OR	403 018 2408	CERAMIC	22P	J	50V
C1310	403 069 5601	CERAMIC	0.01U	K	50V
OR	403 069 6103	CERAMIC	0.01U	K	50V
OR	403 069 6004	CERAMIC	0.01U	K	50V
C1311	403 027 1201	CERAMIC	5P	C	50V
C1311	403 027 3700	CERAMIC	5P	C	50V
OR	403 027 2901	CERAMIC	5P	C	50V
C1313	403 207 0307	CERAMIC	1U	Z	16V
OR	403 278 9605	CERAMIC	1U	Z	16V
OR	403 196 3105	CERAMIC	1U	Z	16V
C1314	403 020 0409	CERAMIC	27P	J	50V
OR	403 020 2106	CERAMIC	27P	J	50V
OR	403 020 1604	CERAMIC	27P	J	50V
C1315	403 031 5608	CERAMIC	7P	C	50V
OR	403 032 1104	DERAMIC	7P	D	50V
OR	403 031 7008	CERAMIC	7P	C	50V
C1341	403 032 2309	CERAMIC	75P	J	50V
OR	403 278 9407	CERAMIC	75P	J	50V
OR	403 153 2103	CERAMIC	75P	J	50V
C1342	403 023 4404	CERAMIC	330P	J	50V
OR	403 023 5500	CERAMIC	330P	J	50V
OR	403 023 5203	CERAMIC	330P	J	50V
C1343	403 014 9203	CERAMIC	180P	J	50V
OR	403 116 0009	CERAMIC	180P	J	50V
OR	403 108 9102	CERAMIC	180P	J	50V
C1346	403 012 6808	CERAMIC	15P	J	50V
OR	403 012 9007	CERAMIC	15P	J	50V
OR	403 012 8406	CERAMIC	15P	J	50V
C1347	403 024 2102	CERAMIC	39P	J	50V
OR	403 024 4205	CERAMIC	39P	J	50V
OR	403 024 3505	CERAMIC	39P	J	50V
C1361	403 073 0005	CERAMIC	3300P	K	50V
OR	403 116 6902	CERAMIC	3300P	K	50V
OR	403 108 7504	CERAMIC	3300P	K	50V
C1362	403 032 2309	CERAMIC	75P	J	50V
OR	403 278 9407	CERAMIC	75P	J	50V
OR	403 153 2103	CERAMIC	75P	J	50V
C1364	403 026 2803	CERAMIC	47P	J	50V
OR	403 115 8105	CERAMIC	47P	J	50V
OR	403 108 8600	CERAMIC	47P	J	50V
C1365	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C1413	403 069 5601	CERAMIC	0.01U	K	50V
OR	403 069 6103	CERAMIC	0.01U	K	50V
OR	403 069 6004	CERAMIC	0.01U	K	50V
C1421	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C1451	403 069 1702	CERAMIC	1000P	K	50V
OR	403 069 2204	CERAMIC	1000P	K	50V
OR	403 069 2105	CERAMIC	1000P	K	50V
C1453	403 022 8205	CERAMIC	33P	J	50V
OR	403 023 0802	CERAMIC	33P	J	50V
OR	403 023 0109	CERAMIC	33P	J	50V
C1602	403 207 0307	CERAMIC	1U	Z	16V
OR	403 278 9605	CERAMIC	1U	Z	16V
OR	403 196 3105	CERAMIC	1U	Z	16V
C1603	403 010 5001	CERAMIC	110P	J	50V
OR	403 278 9902	CERAMIC	110P	J	50V
OR	403 153 2202	CERAMIC	110P	J	50V
C1604	403 069 1702	CERAMIC	1000P	K	50V
OR	403 069 2204	CERAMIC	1000P	K	50V
OR	403 069 2105	CERAMIC	1000P	K	50V
C1605	403 256 0600	ELECT	4.7U	M	25V
OR	403 277 5301	ELECT	4.7U	M	25V
C1608	403 028 4102	CERAMIC	56P	J	50V
OR	403 028 6908	CERAMIC	56P	J	50V
OR	403 028 6007	CERAMIC	56P	J	50V
C1609	403 026 2803	CERAMIC	47P	J	50V
OR	403 115 8105	CERAMIC	47P	J	50V
OR	403 108 8600	CERAMIC	47P	J	50V
C1610	403 010 8507	CERAMIC	12P	J	50V
OR	403 011 0708	CERAMIC	12P	J	50V
OR	403 011 0104	CERAMIC	12P	J	50V
C1613	403 069 1702	CERAMIC	1000P	K	50V
OR	403 069 2204	CERAMIC	1000P	K	50V
OR	403 069 2105	CERAMIC	1000P	K	50V
C1614	403 069 1702	CERAMIC	1000P	K	50V
OR	403 069 2204	CERAMIC	1000P	K	50V
OR	403 069 2105	CERAMIC	1000P	K	50V
C1615	403 009 5708	CERAMIC	100P	J	50V
OR	403 009 7504	CERAMIC	100P	J	50V
OR	403 009 7009	CERAMIC	100P	J	50V
C1618	403 207 0307	CERAMIC	1U	Z	16V

LOCATION	PARTS No.	DESCRIPTION			
C1618	403 278 9605	CERAMIC	1U	Z	16V
OR	403 196 3105	CERAMIC	1U	Z	16V
C1701	403 069 1702	CERAMIC	1000P	K	50V
OR	403 069 2204	CERAMIC	1000P	K	50V
OR	403 069 2105	CERAMIC	1000P	K	50V
C1801	403 009 5708	CERAMIC	100P	J	50V
OR	403 009 7504	CERAMIC	100P	J	50V
OR	403 009 7009	CERAMIC	100P	J	50V
C1802	403 013 3004	CERAMIC	150P	J	50V
OR	403 115 9607	CERAMIC	150P	J	50V
OR	403 108 9003	CERAMIC	150P	J	50V
C1803	403 013 3004	CERAMIC	150P	J	50V
OR	403 115 9607	CERAMIC	150P	J	50V
OR	403 108 9003	CERAMIC	150P	J	50V
C1804	403 069 5601	CERAMIC	0.01U	K	50V
OR	403 069 6103	CERAMIC	0.01U	K	50V
OR	403 069 6004	CERAMIC	0.01U	K	50V
C1805	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C1901	403 069 1702	CERAMIC	1000P	K	50V
OR	403 069 2204	CERAMIC	1000P	K	50V
OR	403 069 2105	CERAMIC	1000P	K	50V
C1903	403 069 1702	CERAMIC	1000P	K	50V
OR	403 069 2204	CERAMIC	1000P	K	50V
OR	403 069 2105	CERAMIC	1000P	K	50V
C1904	403 167 1505	TA-SOLID	6.8U	M	6.3V
OR	403 279 9000	TA-SOLID	6.8U	M	6.3V
C1905	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C1906	403 069 1702	CERAMIC	1000P	K	50V
OR	403 069 2204	CERAMIC	1000P	K	50V
OR	403 069 2105	CERAMIC	1000P	K	50V
C1908	403 069 1702	CERAMIC	1000P	K	50V
OR	403 069 2204	CERAMIC	1000P	K	50V
OR	403 069 2105	CERAMIC	1000P	K	50V
C1910	403 069 5601	CERAMIC	0.01U	K	50V
OR	403 069 6103	CERAMIC	0.01U	K	50V
OR	403 069 6004	CERAMIC	0.01U	K	50V
C1911	403 069 1702	CERAMIC	1000P	K	50V
OR	403 069 2204	CERAMIC	1000P	K	50V
OR	403 069 2105	CERAMIC	1000P	K	50V
C1912	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C1913	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C1914	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C1915	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C1916	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C1917	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C1918	403 069 1702	CERAMIC	1000P	K	50V
OR	403 069 2204	CERAMIC	1000P	K	50V
OR	403 069 2105	CERAMIC	1000P	K	50V
C1919	403 069 5601	CERAMIC	0.01U	K	50V
OR	403 069 6103	CERAMIC	0.01U	K	50V
OR	403 069 6004	CERAMIC	0.01U	K	50V
C1923	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C1925	403 167 1505	TA-SOLID	6.8U	M	6.3V
OR	403 279 9000	TA-SOLID	6.8U	M	6.3V
C1927	403 069 1702	CERAMIC	1000P	K	50V
OR	403 069 2204	CERAMIC	1000P	K	50V
OR	403 069 2105	CERAMIC	1000P	K	50V
C1928	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C1929	403 027 1201	CERAMIC	5P	C	50V
OR	403 027 3700	CERAMIC	5P	C	50V

LOCATION	PARTS No.	DESCRIPTION			
C1929	403 027 2901	CERAMIC	5P	C	50V
C1930	403 027 1201	CERAMIC	5P	C	50V
OR	403 027 3700	CERAMIC	5P	C	50V
OR	403 027 2901	CERAMIC	5P	C	50V
C1931	403 009 5708	CERAMIC	100P	J	50V
OR	403 009 7504	CERAMIC	100P	J	50V
OR	403 009 7009	CERAMIC	100P	J	50V
C2001	403 069 5601	CERAMIC	0.01U	K	50V
OR	403 069 6103	CERAMIC	0.01U	K	50V
OR	403 069 6004	CERAMIC	0.01U	K	50V
C2002	403 028 4102	CERAMIC	56P	J	50V
OR	403 028 6908	CERAMIC	56P	J	50V
OR	403 028 6007	CERAMIC	56P	J	50V
C2003	403 069 5601	CERAMIC	0.01U	K	50V
OR	403 069 6103	CERAMIC	0.01U	K	50V
OR	403 069 6004	CERAMIC	0.01U	K	50V
C2005	403 207 0307	CERAMIC	1U	Z	16V
OR	403 278 9605	CERAMIC	1U	Z	16V
OR	403 196 3105	CERAMIC	1U	Z	16V
C2006	403 193 7601	ELECT	220U	M	6.3V
OR	403 038 6707	ELECT	220U	M	6.3V
C2007	403 207 0307	CERAMIC	1U	Z	16V
OR	403 278 9605	CERAMIC	1U	Z	16V
OR	403 196 3105	CERAMIC	1U	Z	16V
C2010	403 207 0307	CERAMIC	1U	Z	16V
OR	403 278 9605	CERAMIC	1U	Z	16V
OR	403 196 3105	CERAMIC	1U	Z	16V
C2011	403 071 8102	CERAMIC	2200P	K	50V
OR	403 071 8508	CERAMIC	2200P	K	50V
OR	403 071 8706	CERAMIC	2200P	K	50V
C2014	403 207 0307	CERAMIC	1U	Z	16V
OR	403 278 9605	CERAMIC	1U	Z	16V
OR	403 196 3105	CERAMIC	1U	Z	16V
C2015	403 248 9703	ELECT	10U	M	16V
OR	403 268 6508	ELECT	10U	M	16V
C2016	403 258 4903	ELECT	1UM		50V
OR	403 279 0304	ELECT	1U	M	50V
C2017	403 207 0307	CERAMIC	1U	Z	16V
OR	403 278 9605	CERAMIC	1U	Z	16V
OR	403 196 3105	CERAMIC	1U	Z	16V
C2018	403 018 7403	CERAMIC	220P	J	50V
OR	403 116 0702	CERAMIC	220P	J	50V
OR	403 108 9201	CERAMIC	220P	J	50V
C2019	403 256 0600	ELECT	4.7U	M	25V
OR	403 277 5301	ELECT	4.7U	M	25V
C2022	403 140 9603	CERAMIC	0.027U	K	25V
OR	403 192 8708	CERAMIC	0.027U	K	25V
C2023	403 207 0307	CERAMIC	1U	Z	16V
OR	403 278 9605	CERAMIC	1U	Z	16V
OR	403 196 3105	CERAMIC	1U	Z	16V
C2025	403 207 0307	CERAMIC	1U	Z	16V
OR	403 278 9605	CERAMIC	1U	Z	16V
OR	403 196 3105	CERAMIC	1U	Z	16V
C2026	403 256 0600	ELECT	4.7U	M	25V
OR	403 277 5301	ELECT	4.7U	M	25V
C2028	403 130 3604	CERAMIC	0.047U	K	25V
OR	403 150 5008	CERAMIC	0.047U	K	25V
C2029	403 130 3604	CERAMIC	0.047U	K	25V
OR	403 150 5008	CERAMIC	0.047U	K	25V
C2030	403 069 5601	CERAMIC	0.01U	K	50V
OR	403 069 6103	CERAMIC	0.01U	K	50V
OR	403 069 6004	CERAMIC	0.01U	K	50V
C2031	403 069 5601	CERAMIC	0.01U	K	50V
OR	403 069 6103	CERAMIC	0.01U	K	50V
OR	403 069 6004	CERAMIC	0.01U	K	50V
C2910	403 071 3503	CERAMIC	0.018U	K	50V
C2911	403 067 9809	CERAMIC	0.1U	K	25V
OR	403 159 1209	CERAMIC	0.1U	K	25V
C2912	403 248 9703	ELECT	10U	M	16V
OR	403 268 6508	ELECT	10U	M	16V
C2913	403 074 7607	CERAMIC	5600P	K	50V
OR	403 108 7801	CERAMIC	5600P	K	50V
C2920	403 258 4200	ELECT	22U	M	6.3V
OR	403 277 5400	ELECT	22U	M	6.3V
C3201	403 069 1702	CERAMIC	1000P	K	50V
OR	403 069 2204	CERAMIC	1000P	K	50V
OR	403 069 2105	CERAMIC	1000P	K	50V
C3202	403 207 0307	CERAMIC	1U	Z	16V
OR	403 278 9605	CERAMIC	1U	Z	16V
OR	403 196 3105	CERAMIC	1U	Z	16V

LOCATION	PARTS No.	DESCRIPTION			
C3203	403 071 8102	CERAMIC	2200P	K	50V
OR	403 071 8706	CERAMIC	2200P	K	50V
OR	403 071 8508	CERAMIC	2200P	K	50V
C3204	403 207 0307	CERAMIC	1U	Z	16V
OR	403 278 9605	CERAMIC	1U	Z	16V
OR	403 196 3105	CERAMIC	1U	Z	16V
C3206	403 258 4200	ELECT	22U	M	6.3V
OR	403 277 5400	ELECT	22U	M	6.3V
C3207	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3208	403 026 2803	CERAMIC	47P	J	50V
OR	403 115 8105	CERAMIC	47P	J	50V
OR	403 108 8600	CERAMIC	47P	J	50V
C3209	403 026 2803	CERAMIC	47P	J	50V
OR	403 115 8105	CERAMIC	47P	J	50V
OR	403 108 8600	CERAMIC	47P	J	50V
C3211	403 009 5708	CERAMIC	100P	J	50V
OR	403 009 7504	CERAMIC	100P	J	50V
OR	403 009 7009	CERAMIC	100P	J	50V
C3213	403 033 4500	CERAMIC	82P	J	50V
OR	403 115 8907	CERAMIC	82P	J	50V
OR	403 108 8808	CERAMIC	82P	J	50V
C3214	403 014 9203	CERAMIC	180P	J	50V
OR	403 116 0009	CERAMIC	180P	J	50V
OR	403 108 9102	CERAMIC	180P	J	50V
C3215	403 018 0503	CERAMIC	22P	J	50V
OR	403 018 3207	CERAMIC	22P	J	50V
OR	403 018 2408	CERAMIC	22P	J	50V
C3216	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3351	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3401	403 207 0307	CERAMIC	1U	Z	16V
OR	403 278 9605	CERAMIC	1U	Z	16V
OR	403 196 3105	CERAMIC	1U	Z	16V
C3402	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3403	403 258 4200	ELECT	22U	M	6.3V
OR	403 277 5400	ELECT	22U	M	6.3V
C3404	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3405	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3406	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3501	403 192 0207	TA-SOLID	4.7U	M	6.3V
OR	403 275 7406	TA-SOLID	4.7U	M	6.3V
C3502	403 069 5601	CERAMIC	0.01U	K	50V
OR	403 069 6103	CERAMIC	0.01U	K	50V
OR	403 069 6004	CERAMIC	0.01U	K	50V
C3503	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3504	403 207 0307	CERAMIC	1U	Z	16V
OR	403 278 9605	CERAMIC	1U	Z	16V
OR	403 196 3105	CERAMIC	1U	Z	16V
C3505	403 018 0503	CERAMIC	22P	J	50V
OR	403 018 3207	CERAMIC	22P	J	50V
OR	403 018 2408	CERAMIC	22P	J	50V
C3506	403 020 0409	CERAMIC	27P	J	50V
OR	403 020 2106	CERAMIC	27P	J	50V
OR	403 020 1604	CERAMIC	27P	J	50V
C3507	403 018 0503	CERAMIC	22P	J	50V
OR	403 018 3207	CERAMIC	22P	J	50V
OR	403 018 2408	CERAMIC	22P	J	50V
C3509	403 069 5601	CERAMIC	0.01U	K	50V
OR	403 069 6103	CERAMIC	0.01U	K	50V
OR	403 069 6004	CERAMIC	0.01U	K	50V
C3510	403 069 5601	CERAMIC	0.01U	K	50V
OR	403 069 6103	CERAMIC	0.01U	K	50V
OR	403 069 6004	CERAMIC	0.01U	K	50V
C3511	403 013 3004	CERAMIC	150P	J	50V
OR	403 115 9607	CERAMIC	150P	J	50V
C3511	403 108 9003	CERAMIC	150P	J	50V
C3512	403 013 3004	CERAMIC	150P	J	50V
OR	403 115 9607	CERAMIC	150P	J	50V
OR	403 108 9003	CERAMIC	150P	J	50V
C3513	403 018 0503	CERAMIC	22P	J	50V
OR	403 018 3207	CERAMIC	22P	J	50V
OR	403 018 2408	CERAMIC	22P	J	50V
C3514	403 026 2803	CERAMIC	47P	J	50V
OR	403 115 8105	CERAMIC	47P	J	50V
OR	403 108 8600	CERAMIC	47P	J	50V
C3515	403 026 2803	CERAMIC	47P	J	50V
OR	403 115 8105	CERAMIC	47P	J	50V
OR	403 108 8600	CERAMIC	47P	J	50V
C3516	403 026 7501	CERAMIC	470P	J	50V
OR	403 133 9009	CERAMIC	470P	J	50V
OR	403 108 9300	CERAMIC	470P	J	50V
C3517	403 026 7501	CERAMIC	470P	J	50V
OR	403 133 9009	CERAMIC	470P	J	50V
OR	403 108 9300	CERAMIC	470P	J	50V
C3571	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3572	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3573	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3576	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3577	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3578	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3591	403 162 3900	ELECT	47U	M	4V
OR	403 279 0205	ELECT	47U	M	4V
C3602	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3603	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3604	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3606	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3607	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3608	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3801	403 070 9803	CERAMIC	0.015U	K	50V
OR	403 116 7602	CDRAMIC	0.015U	K	50V
OR	403 071 0205	CERAMIC	0.015U	K	50V
C3802	403 070 9803	CERAMIC	0.015U	K	50V
OR	403 116 7602	CDRAMIC	0.015U	K	50V
OR	403 071 0205	CERAMIC	0.015U	K	50V
C3803	403 070 9803	CERAMIC	0.015U	K	50V
OR	403 116 7602	CDRAMIC	0.015U	K	50V
OR	403 071 0205	CERAMIC	0.015U	K	50V
C3804	403 070 9803	CERAMIC	0.015U	K	50V
OR	403 116 7602	CDRAMIC	0.015U	K	50V
OR	403 071 0205	CERAMIC	0.015U	K	50V
C3805	403 167 1208	TA-SOLID	0.22U	M	35V
OR	403 092 6606	TA-SOLID	0.22U	M	35V
C3808	403 207 0307	CERAMIC	1U	Z	16V
OR	403 278 9605	CERAMIC	1U	Z	16V
OR	403 196 3105	CERAMIC	1U	Z	16V
C3809	403 068 0409	CERAMIC	0.1U	Z	25V
OR	403 116 2508	CERAMIC	0.1U	Z	25V
OR	403 109 7909	CERAMIC	0.1U	Z	25V
C3810	403 068 3202	CERAMIC	0.033U	K	25V
OR	403 156 7600	CERAMIC	0.033U	K	25V
C3811	403 068 3202	CERAMIC	0.033U	K	25V

LOCATION	PARTS No.	DESCRIPTION
C3811	403 156 7600	CERAMIC 0.033U K 25V
C3812	403 068 3202	CERAMIC 0.033U K 25V
OR	403 156 7600	CERAMIC 0.033U K 25V
C3814	403 068 6203	CERAMIC 0.068U Z 25V
OR	403 116 2300	CERAMIC 0.068U Z 25V
OR	403 176 2807	CERAMIC 0.068U Z 50V
C3815	403 167 0607	TA-SOLID 1U M 16V
OR	403 091 0407	TA-SOLID 1U M 16V
C3816	403 207 0307	CERAMIC 1U Z 16V
OR	403 278 9605	CERAMIC 1U Z 16V
OR	403 196 3105	CERAMIC 1U Z 16V
C3817	403 258 4200	ELECT 22U M 6.3V
OR	403 277 5400	ELECT 22U M 6.3V
C3818	403 068 0409	CERAMIC 0.1U Z 25V
OR	403 116 2508	CERAMIC 0.1U Z 25V
OR	403 109 7909	CERAMIC 0.1U Z 25V
C3822	403 068 0409	CERAMIC 0.1U Z 25V
OR	403 116 2508	CERAMIC 0.1U Z 25V
OR	403 109 7909	CERAMIC 0.1U Z 25V
C3824	403 068 0409	CERAMIC 0.1U Z 25V
OR	403 116 2508	CERAMIC 0.1U Z 25V
OR	403 109 7909	CERAMIC 0.1U Z 25V
C3825	403 248 9703	ELECT 10U M 16V
OR	403 268 6508	ELECT 10U M 16V
C3901	403 258 4200	ELECT 22U M 6.3V
OR	403 277 5400	ELECT 22U M 6.3V
C3902	403 069 5601	CERAMIC 0.01U K 50V
OR	403 069 6103	CERAMIC 0.01U K 50V
OR	403 069 6004	CERAMIC 0.01U K 50V
C3903	403 069 5601	CERAMIC 0.01U K 50V
OR	403 069 6103	CERAMIC 0.01U K 50V
OR	403 069 6004	CERAMIC 0.01U K 50V
C3904	403 009 5708	CERAMIC 100P J 50V
OR	403 009 7504	CERAMIC 100P J 50V
OR	403 009 7009	CERAMIC 100P J 50V
C3905	403 069 5601	CERAMIC 0.01U K 50V
OR	403 069 6103	CERAMIC 0.01U K 50V
OR	403 069 6004	CERAMIC 0.01U K 50V
C3906	403 069 5601	CERAMIC 0.01U K 50V
OR	403 069 6103	CERAMIC 0.01U K 50V
OR	403 069 6004	CERAMIC 0.01U K 50V
C3907	403 068 0409	CERAMIC 0.1U Z 25V
OR	403 116 2508	CERAMIC 0.1U Z 25V
OR	403 109 7909	CERAMIC 0.1U Z 25V
(DIODES)		
D1001	407 142 5007	DIODE MA123-(TW)
D1301	407 113 0505	DIODE 1SS302-TE85L
D3101	407 108 3801	DIODE DCG010-TL
OR	407 130 4401	DIODE DAN202U-T106
OR	407 134 7408	DIODE MA141WK-TX
D3102	407 108 3801	DIODE DCG010-TL
OR	407 130 4401	DIODE DAN202U-T106
OR	407 134 7408	DIODE MA141WK-TX
D3103	407 108 3801	DIODE DCG010-TL
OR	407 130 4401	DIODE DAN202U-T106
OR	407 134 7408	DIODE MA141WK-TX
D3104	407 108 3801	DIODE DCG010-TL
OR	407 130 4401	DIODE DAN202U-T106
OR	407 134 7408	DIODE MA141WK-TX
D3105	407 108 3801	DIODE DCG010-TL
OR	407 130 4401	DIODE DAN202U-T106
OR	407 134 7408	DIODE MA141WK-TX
D3106	407 108 3801	DIODE DCG010-TL
OR	407 130 4401	DIODE DAN202U-T106
OR	407 134 7408	DIODE MA141WK-TX
D3107	407 108 3801	DIODE DCG010-TL
OR	407 130 4401	DIODE DAN202U-T106
OR	407 134 7408	DIODE MA141WK-TX
D3351	407 132 6007	LED BR3432S
D3501	407 142 3805	ZENER DIODE MA3082WA-TX
(INTEGRATED CIRCUITS)		
IC101	409 276 2006	IC LA7461W-TRM
IC111	409 330 6902	IC CXL1506M-T4
IC121	409 297 6700	IC LV4001W-TRM
IC161	409 176 0003	IC CXA1203N-T4
IC191	409 170 9200	IC CXA1202R-T4
IC201	409 272 2505	IC LA7454W-P-TRM
IC321	409 330 0801	IC XLU6000FS-E1

LOCATION	PARTS No.	DESCRIPTION
IC323	409 244 2403	IC BA7046F-T1
IC341	409 264 2209	IC S-8420BF-T1
IC351	410 198 7901	IC M37773M4A101HP
IC361	409 303 2108	IC LB1881MMT-T1
OR	409 274 5900	IC LB1881M-T1
IC381	409 298 2909	IC LB1885M-A-T1
IC391	409 330 0702	IC MPC1720MR1
(COILS)		
L1007	636 003 2477	HF CHOKE,39UHJ
L1008	636 003 2460	HF CHOKE,33UHJ
L1015	636 027 8592	COIL,INDUCTOR 100UHJ
L1017	636 027 8684	COIL,INDUCTOR 22UHJ
L1018	636 003 2484	HF CHOKE,47UHJ
L1020	636 003 2514	HF CHOKE,82UHJ
L1104	636 003 5379	CORE
L1105	636 003 2460	HF CHOKE,33UHJ
L1106	636 003 2408	HF CHOKE,10UHJ
L1109	636 028 1813	COIL,INDUCTOR 4.7UHJ
L1110	636 028 1813	COIL,INDUCTOR 4.7UHJ
L1111	636 003 2460	HF CHOKE,33UHJ
L1204	636 027 8639	COIL,INDUCTOR 150UHJ
L1205	636 003 2446	HF CHOKE,22UHJ
L1206	636 027 8592	COIL,INDUCTOR 100UHJ
L1207	636 038 4767	COIL,INDUCTOR 12UHJ
L1208	636 038 4804	COIL,INDUCTOR 15UHJ
L1209	636 003 2422	HF CHOKE,15UHJ
L1210	636 003 2422	HF CHOKE,15UHJ
L1211	636 003 2460	HF CHOKE,33UHJ
L1302	636 028 1813	COIL,INDUCTOR 4.7UHJ
L1303	636 027 8738	COIL,INDUCTOR 33UHJ
L1304	636 038 5993	COIL,INDUCTOR 470UHJ
L1305	636 040 1006	COIL,INDUCTOR 330UHJ
L1306	636 003 2552	HF CHOKE,180UHJ
L1307	636 003 2408	HF CHOKE,10UHJ
L1308	636 003 2491	HF CHOKE,56UHJ
L1309	636 003 2408	HF CHOKE,10UHJ
L1340	636 027 8639	COIL,INDUCTOR 150UHJ
L1341	636 027 8806	COIL,INDUCTOR 68UHJ
L1342	636 028 1844	COIL,INDUCTOR 8.2UHJ
L1361	636 027 8592	COIL,INDUCTOR 100UHJ
L1362	636 027 8639	COIL,INDUCTOR 150UHJ
L1603	636 003 2408	HF CHOKE,10UHJ
L1801	636 003 2408	HF CHOKE,10UHJ
L1901	636 002 8821	RF CHOKE,10UHJ
L3201	636 003 2484	HF CHOKE,47UHJ
L3501	636 019 8746	COIL,INDUCTOR 47UHK
(TRANSISTORS)		
Q1002	405 078 6709	TR 2SC4396-TL
OR	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q1003	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1004	405 077 2207	TR 2SA1622-6-TL
OR	405 092 4200	TR 2SA1576-R-T106
OR	405 102 5500	TR 2SB1218A-R-TX
Q1005	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1006	405 078 6709	TR 2SC4396-TL
OR	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q1007	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1008	405 078 6709	TR 2SC4396-TL
OR	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q1011	405 078 6709	TR 2SC4396-TL
OR	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q1012	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1013	405 077 2207	TR 2SA1622-6-TL
OR	405 092 4200	TR 2SA1576-R-T106
OR	405 102 5500	TR 2SB1218A-R-TX
Q1015	405 077 3402	TR 2SC4211-6-TL

LOCATION	PARTS No.	DESCRIPTION
C1015	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1017	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1018	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1019	405 078 6709	TR 2SC4396-TL
OR	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q1023	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1024	405 078 6709	TR 2SC4396-TL
OR	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q1025	405 077 2207	TR 2SA1622-6-TL
OR	405 092 4200	TR 2SA1576-R-T106
OR	405 102 5500	TR 2SB1218A-R-TX
Q1026	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1031	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1091	405 078 5801	TR 2SA1676-TL
OR	405 096 1106	TR DTA144EU-T106
OR	405 102 3605	TR UN5113-TX
Q1092	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1093	405 078 6709	TR 2SC4396-TL
OR	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q1094	405 078 6709	TR 2SC4396-TL
OR	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q1101	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1102	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1103	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1104	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1105	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1106	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1107	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1202	405 060 7509	TR FMG2-T99
OR	405 120 6701	TR XN1213-TW
Q1203	405 078 6709	TR 2SC4396-TL
OR	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q1205	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1206	405 078 6709	TR 2SC4396-TL
OR	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q1301	405 077 2207	TR 2SA1622-6-TL
OR	405 092 4200	TR 2SA1576-R-T106
OR	405 102 5500	TR 2SB1218A-R-TX
Q1302	405 077 2207	TR 2SA1622-6-TL
OR	405 092 4200	TR 2SA1576-R-T106
OR	405 102 5500	TR 2SB1218A-R-TX
Q1303	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1304	405 077 2207	TR 2SA1622-6-TL
C1304	405 092 4200	TR 2SA1576-R-T106
OR	405 102 5500	TR 2SB1218A-R-TX
Q1305	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1306	405 078 6709	TR 2SC4396-TL
OR	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q1308	405 078 5801	TR 2SA1676-TL
OR	405 096 1106	TR DTA144EU-T106
OR	405 102 3605	TR UN5113-TX
Q1309	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1310	405 078 6709	TR 2SC4396-TL
OR	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q1312	405 078 5801	TR 2SA1676-TL
OR	405 096 1106	TR DTA144EU-T106
OR	405 102 3605	TR UN5113-TX
Q1343	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1344	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1361	405 077 2207	TR 2SA1622-6-TL
OR	405 092 4200	TR 2SA1576-R-T106
OR	405 102 5500	TR 2SB1218A-R-TX
Q1413	405 008 7707	TR 2SB815-B7
OR	405 008 7509	TR 2SB815-B6
Q1422	405 102 6705	TR 2SA1745-7-TL
OR	405 102 8303	TR 2SA1745-6-TL
Q1453	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1456	405 077 2207	TR 2SA1622-6-TL
OR	405 092 4200	TR 2SA1576-R-T106
OR	405 102 5500	TR 2SB1218A-R-TX
Q1457	405 077 2207	TR 2SA1622-6-TL
OR	405 092 4200	TR 2SA1576-R-T106
OR	405 102 5500	TR 2SB1218A-R-TX
Q1601	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1602	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1604	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q1605	405 078 5801	TR 2SA1676-TL
OR	405 096 1106	TR DTA144EU-T106
OR	405 102 3605	TR UN5113-TX
Q1701	405 078 6709	TR 2SC4396-TL
OR	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q1702	405 078 6709	TR 2SC4396-TL
OR	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q1801	405 077 2207	TR 2SA1622-6-TL
OR	405 092 4200	TR 2SA1576-R-T106
OR	405 102 5500	TR 2SB1218A-R-TX
Q1802	405 077 2207	TR 2SA1622-6-TL
OR	405 092 4200	TR 2SA1576-R-T106
OR	405 102 5500	TR 2SB1218A-R-TX
Q1901	405 078 6709	TR 2SC4396-TL
OR	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q2030	405 078 6709	TR 2SC4396-TL
OR	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q2031	405 078 5801	TR 2SA1676-TL
OR	405 096 1106	TR DTA144EU-T106
OR	405 102 3605	TR UN5113-TX
Q2902	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
Q2903	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
Q3201	405 078 6709	TR 2SC4396-TL

LOCATION	PARTS No.	DESCRIPTION
Q3201	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q3202	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q3301	405 083 0501	TR FMG9-T99
OR	405 120 6602	TR XN1211-TW
Q3351	405 078 4300	TR 2SC4398-TL
OR	405 096 2707	TR DTC114EU-T106
Q3352	405 078 6105	TR 2SA1677-TL
OR	405 096 1205	TR DTA124EU-T106
OR	405 119 1007	TR UN5112-TX
Q3501	405 102 6705	TR 2SA1745-7-TL
OR	405 102 8303	TR 2SA1745-6-TL
Q3502	405 078 6709	TR 2SC4396-TL
OR	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q3503	405 060 7509	TR FMG2-T99
OR	405 120 6701	TR XN1213-TW
Q3571	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q3801	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q3802	405 078 6709	TR 2SC4396-TL
OR	405 096 2400	TR DTC144EU-T106
OR	405 102 5005	TR UN5213-TX
Q3901	405 047 8109	TR 2SB1202-S-TL
(RESISTOR PACKS)		
RB311	645 001 6981	R-NETWORK,100KX2 0.063W
OR	636 036 0259	CHIP R-NETWORK,100KX2
RB312	645 001 6981	R-NETWORK,100KX2 0.063W
OR	636 036 0259	CHIP R-NETWORK,100KX2
RB313	645 001 6981	R-NETWORK,100KX2 0.063W
OR	636 036 0259	CHIP R-NETWORK,100KX2
RB314	645 001 6981	R-NETWORK,100KX2 0.063W
OR	636 036 0259	CHIP R-NETWORK,100KX2
RB315	645 001 6981	R-NETWORK,100KX2 0.063W
OR	636 036 0259	CHIP R-NETWORK,100KX2
RB316	645 001 6981	R-NETWORK,100KX2 0.063W
OR	636 036 0259	CHIP R-NETWORK,100KX2
RB321	645 001 6868	R-NETWORK,10KX2 0.063W
OR	636 036 0242	CHIP R-NETWORK,10KX2
RB331	645 001 6981	R-NETWORK,100KX2 0.063W
OR	636 036 0259	CHIP R-NETWORK,100KX2
RB332	645 001 6868	R-NETWORK,10KX2 0.063W
OR	636 036 0242	CHIP R-NETWORK,10KX2
RB351	645 001 6981	R-NETWORK,100KX2 0.063W
OR	636 036 0259	CHIP R-NETWORK,100KX2
RB352	645 001 6981	R-NETWORK,100KX2 0.063W
OR	636 036 0259	CHIP R-NETWORK,100KX2
RB353	645 001 6981	R-NETWORK,100KX2 0.063W
OR	636 036 0259	CHIP R-NETWORK,100KX2
RB354	645 001 6981	R-NETWORK,100KX2 0.063W
OR	636 036 0259	CHIP R-NETWORK,100KX2
RB355	645 001 6981	R-NETWORK,100KX2 0.063W
OR	636 036 0259	CHIP R-NETWORK,100KX2
RB356	645 001 6868	R-NETWORK,10KX2 0.063W
OR	636 036 0242	CHIP R-NETWORK,10KX2
RB357	645 001 6981	R-NETWORK,100KX2 0.063W
OR	636 036 0259	CHIP R-NETWORK,100KX2
(RESISTORS)		
R1000	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R1001	401 105 0504	MT-GLAZE 1K JA 1/16W
R1002	401 105 0504	MT-GLAZE 1K JA 1/16W
R1003	401 105 6407	MT-GLAZE 68 JA 1/16W
R1004	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1005	401 110 8601	MT-GLAZE 1 JA 1/10W
R1006	401 038 2507	MT-GLAZE 3.3 JA 1/10W
R1007	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R1008	401 105 4700	MT-GLAZE 39K JA 1/16W
R1009	401 105 8104	MT-GLAZE 56K JA 1/16W
R1010	401 105 8203	MT-GLAZE 68K JA 1/16W
R1011	401 105 0702	MT-GLAZE 100K JA 1/16W
R1012	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1020	401 167 0603	MT-FILM 13K DU 1/16W
R1021	401 167 0900	MT-FILM 18K DU 1/16W

LOCATION	PARTS No.	DESCRIPTION
R1022	401 105 5905	MT-GLAZE 560 JA 1/16W
R1023	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R1024	401 178 1606	MT-GLAZE 7.5 JA 1/10W
R1025	401 113 6307	MT-GLAZE 4.3K JA 1/16W
R1026	401 105 5202	MT-GLAZE 470 JA 1/16W
R1027	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1028	401 105 7602	MT-GLAZE 820K JA 1/16W
R1029	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R1030	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1033	401 105 0603	MT-GLAZE 10K JA 1/16W
R1034	401 105 2102	MT-GLAZE 18K JA 1/16W
R1036	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R1037	401 105 8005	MT-GLAZE 1M JA 1/16W
R1038	401 105 5400	MT-GLAZE 47K JA 1/16W
R1039	401 105 7305	MT-GLAZE 820 JA 1/16W
R1040	401 105 0603	MT-GLAZE 10K JA 1/16W
R1041	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R1042	401 166 8303	MT-FILM 1.2K DU 1/16W
R1043	401 166 8907	MT-FILM 2.4K DU 1/16W
R1045	401 166 8808	MT-FILM 2.2K DU 1/16W
R1046	401 105 5103	MT-GLAZE 47 JA 1/16W
R1047	401 105 0504	MT-GLAZE 1K JA 1/16W
R1048	401 105 6506	MT-GLAZE 680 JA 1/16W
R1049	401 166 3001	MT-FILM 2.7K DU 1/16W
R1050	401 105 0504	MT-GLAZE 1K JA 1/16W
R1051	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1052	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1054	401 105 0504	MT-GLAZE 1K JA 1/16W
R1055	401 105 0603	MT-GLAZE 10K JA 1/16W
R1056	401 105 0405	MT-GLAZE 100 JA 1/16W
R1057	401 166 8907	MT-FILM 2.4K DU 1/16W
R1058	401 105 5103	MT-GLAZE 47 JA 1/16W
R1059	401 105 0603	MT-GLAZE 10K JA 1/16W
R1061	401 038 0503	MT-GLAZE 22 JA 1/10W
R1065	401 166 9102	MT-FILM 3.3K DU 1/16W
R1066	401 105 8203	MT-GLAZE 68K JA 1/16W
R1067	401 166 8600	MT-FILM 1.8K DU 1/16W
R1068	401 105 6506	MT-GLAZE 680 JA 1/16W
R1069	401 105 6506	MT-GLAZE 680 JA 1/16W
R1070	401 105 3406	MT-GLAZE 27K JA 1/16W
R1071	401 105 2102	MT-GLAZE 18K JA 1/16W
R1073	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1074	401 105 2706	MT-GLAZE 220 JA 1/16W
R1075	401 105 5905	MT-GLAZE 560 JA 1/16W
R1076	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R1077	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1078	401 105 0504	MT-GLAZE 1K JA 1/16W
R1079	401 105 0504	MT-GLAZE 1K JA 1/16W
R1082	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R1083	401 167 0306	MT-FILM 10K DU 1/16W
R1084	401 105 2904	MT-GLAZE 22K JA 1/16W
R1086	401 166 9300	MT-FILM 3.9K DU 1/16W
R1087	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R1092	401 105 1105	MT-GLAZE 12K JA 1/16W
R1093	401 105 5400	MT-GLAZE 47K JA 1/16W
R1094	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R1095	401 105 5400	MT-GLAZE 47K JA 1/16W
R1100	401 105 0603	MT-GLAZE 10K JA 1/16W
R1101	401 105 6100	MT-GLAZE 560K JA 1/16W
R1104	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1105	401 105 7503	MT-GLAZE 82K JA 1/16W
R1106	401 105 0900	MT-GLAZE 120 JA 1/16W
R1107	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1109	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1110	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1111	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R1112	401 105 4403	MT-GLAZE 39 JA 1/16W
R1114	401 105 5905	MT-GLAZE 560 JA 1/16W
R1115	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1116	401 105 7305	MT-GLAZE 820 JA 1/16W
R1118	401 105 5905	MT-GLAZE 560 JA 1/16W
R1119	401 105 6506	MT-GLAZE 680 JA 1/16W
R1120	401 105 7305	MT-GLAZE 820 JA 1/16W
R1121	401 113 6109	MT-GLAZE 2.4K JA 1/16W
R1122	401 105 6407	MT-GLAZE 68 JA 1/16W
R1123	401 105 3208	MT-GLAZE 270 JA 1/16W
R1124	401 105 2706	MT-GLAZE 220 JA 1/16W
R1125	401 105 6506	MT-GLAZE 680 JA 1/16W
R1126	401 105 0504	MT-GLAZE 1K JA 1/16W
R1127	401 105 0504	MT-GLAZE 1K JA 1/16W

LOCATION	PARTS No.	DESCRIPTION
R1129	401 105 0504	MT-GLAZE 1K JA 1/16W
R1130	401 105 0702	MT-GLAZE 100K JA 1/16W
R1131	401 105 0504	MT-GLAZE 1K JA 1/16W
R1132	401 098 7603	MT-GLAZE 2.2 JA 1/10W
R1133	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1201	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R1202	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R1204	401 113 5904	MT-GLAZE 1.3K JA 1/16W
R1205	401 105 1709	MT-GLAZE 150K JA 1/16W
R1206	401 105 3406	MT-GLAZE 27K JA 1/16W
R1207	401 105 4700	MT-GLAZE 39K JA 1/16W
R1209	401 098 7603	MT-GLAZE 2.2 JA 1/10W
R1210	401 105 6506	MT-GLAZE 680 JA 1/16W
R1212	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1215	401 105 0504	MT-GLAZE 1K JA 1/16W
R1216	401 105 4007	MT-GLAZE 330 JA 1/16W
R1218	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1221	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R1222	401 105 0504	MT-GLAZE 1K JA 1/16W
R1224	401 105 0504	MT-GLAZE 1K JA 1/16W
R1225	401 105 0504	MT-GLAZE 1K JA 1/16W
R1226	401 105 4502	MT-GLAZE 390 JA 1/16W
R1235	401 105 1105	MT-GLAZE 12K JA 1/16W
R1236	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1238	401 105 0603	MT-GLAZE 10K JA 1/16W
R1239	401 105 6506	MT-GLAZE 680 JA 1/16W
R1240	401 113 5607	MT-GLAZE 750 JA 1/16W
R1241	401 105 0603	MT-GLAZE 10K JA 1/16W
R1301	401 105 5202	MT-GLAZE 470 JA 1/16W
R1303	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1304	401 105 5905	MT-GLAZE 560 JA 1/16W
R1305	401 105 4007	MT-GLAZE 330 JA 1/16W
R1307	401 105 5202	MT-GLAZE 470 JA 1/16W
R1308	401 105 5202	MT-GLAZE 470 JA 1/16W
R1309	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R1310	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1311	401 105 7305	MT-GLAZE 820 JA 1/16W
R1312	401 105 1105	MT-GLAZE 12K JA 1/16W
R1313	401 105 0603	MT-GLAZE 10K JA 1/16W
R1314	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1315	401 105 4502	MT-GLAZE 390 JA 1/16W
R1317	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R1318	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1320	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1321	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R1322	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1323	401 105 1907	MT-GLAZE 180 JA 1/16W
R1324	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1328	401 038 6703	MT-GLAZE 5.6 JA 1/10W
R1342	401 105 5905	MT-GLAZE 560 JA 1/16W
R1343	401 105 5905	MT-GLAZE 560 JA 1/16W
R1344	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R1348	401 105 6506	MT-GLAZE 680 JA 1/16W
R1349	401 105 6506	MT-GLAZE 680 JA 1/16W
R1350	401 105 0405	MT-GLAZE 100 JA 1/16W
R1351	401 105 5905	MT-GLAZE 560 JA 1/16W
R1352	401 166 6705	MT-FILM 270 DU 1/16W
R1353	401 105 3109	MT-GLAZE 27 JA 1/16W
R1354	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1355	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1356	401 166 6507	MT-FILM 220 DU 1/16W
R1361	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1362	401 105 6506	MT-GLAZE 680 JA 1/16W
R1363	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R1372	401 166 9300	MT-FILM 3.9K DU 1/16W
R1373	401 166 7108	MT-FILM 390 DU 1/16W
R1374	401 037 5103	MT-GLAZE 10 JA 1/10W
R1410	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1412	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1413	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1421	401 105 0504	MT-GLAZE 1K JA 1/16W
R1422	401 113 6208	MT-GLAZE 3.6K JA 1/16W
R1424	401 038 2507	MT-GLAZE 3.3 JA 1/10W
R1427	401 113 5706	MT-GLAZE 910 JA 1/16W
R1428	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1429	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1430	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1451	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R1452	401 105 2409	MT-GLAZE 2K JA 1/16W
R1455	401 105 5905	MT-GLAZE 560 JA 1/16W
R1460	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R1461	401 105 0603	MT-GLAZE 10K JA 1/16W
R1462	401 105 0603	MT-GLAZE 10K JA 1/16W
R1464	401 105 5905	MT-GLAZE 560 JA 1/16W
R1602	401 105 0603	MT-GLAZE 10K JA 1/16W
R1603	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R1605	401 105 0603	MT-GLAZE 10K JA 1/16W
R1606	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1608	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1610	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R1611	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R1612	401 105 0702	MT-GLAZE 100K JA 1/16W
R1613	401 105 0504	MT-GLAZE 1K JA 1/16W
R1614	401 105 4007	MT-GLAZE 330 JA 1/16W
R1617	401 105 4304	MT-GLAZE 330K JA 1/16W
R1618	401 098 7603	MT-GLAZE 2.2 JA 1/10W
R1619	401 105 2201	MT-GLAZE 180K JA 1/16W
R1621	401 105 4205	MT-GLAZE 33K JA 1/16W
R1622	401 105 5400	MT-GLAZE 47K JA 1/16W
R1623	401 105 2904	MT-GLAZE 22K JA 1/16W
R1629	401 105 1402	MT-GLAZE 150 JA 1/16W
R1631	401 105 0603	MT-GLAZE 10K JA 1/16W
R1702	401 105 0603	MT-GLAZE 10K JA 1/16W
R1703	401 105 0603	MT-GLAZE 10K JA 1/16W
R1704	401 105 0603	MT-GLAZE 10K JA 1/16W
R1707	401 105 0603	MT-GLAZE 10K JA 1/16W
R1801	401 105 0306	MT-GLAZE 10 JA 1/16W
R1802	401 105 3208	MT-GLAZE 270 JA 1/16W
R1803	401 105 2706	MT-GLAZE 220 JA 1/16W
R1804	401 105 2904	MT-GLAZE 22K JA 1/16W
R1805	401 105 4205	MT-GLAZE 33K JA 1/16W
R1806	401 038 6703	MT-GLAZE 5.6 JA 1/10W
R1901	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1903	401 113 8004	MT-GLAZE 36K JA 1/16W
R1904	401 105 1105	MT-GLAZE 12K JA 1/16W
R1905	401 105 2904	MT-GLAZE 22K JA 1/16W
R1906	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1907	401 105 8104	MT-GLAZE 56K JA 1/16W
R1908	401 113 7106	MT-GLAZE 24K JA 1/16W
R1909	401 105 4700	MT-GLAZE 39K JA 1/16W
R1910	401 105 8104	MT-GLAZE 56K JA 1/16W
R1911	401 105 2904	MT-GLAZE 22K JA 1/16W
R1912	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1913	401 113 8004	MT-GLAZE 36K JA 1/16W
R1914	401 105 1105	MT-GLAZE 12K JA 1/16W
R1915	401 038 2507	MT-GLAZE 3.3 JA 1/10W
R1917	401 105 1105	MT-GLAZE 12K JA 1/16W
R1918	401 105 4700	MT-GLAZE 39K JA 1/16W
R1919	401 105 3000	MT-GLAZE 220K JA 1/16W
R1920	401 105 4700	MT-GLAZE 39K JA 1/16W
R1921	401 105 3000	MT-GLAZE 220K JA 1/16W
R1923	401 038 2507	MT-GLAZE 3.3 JA 1/10W
R1924	401 105 0603	MT-GLAZE 10K JA 1/16W
R1925	401 105 7305	MT-GLAZE 820 JA 1/16W
R1926	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R1981	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1982	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1983	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2001	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R2003	401 105 2607	MT-GLAZE 22 JA 1/16W
R2005	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R2006	401 105 0702	MT-GLAZE 100K JA 1/16W
R2010	401 105 4205	MT-GLAZE 33K JA 1/16W
R2011	401 105 0603	MT-GLAZE 10K JA 1/16W
R2017	401 166 3100	MT-FILM 22K DU 1/16W
R2018	401 114 0908	MT-GLAZE 3.3M JA 1/16W
R2019	401 167 0009	MT-FILM 7.5K DU 1/16W
R2020	401 167 0306	MT-FILM 10K DU 1/16W
R2021	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R2022	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R2040	401 105 0504	MT-GLAZE 1K JA 1/16W
R2901	401 105 0504	MT-GLAZE 1K JA 1/16W
R2902	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R2910	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R2911	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2912	401 105 2904	MT-GLAZE 22K JA 1/16W
R2913	401 105 3406	MT-GLAZE 27K JA 1/16W
R2914	401 105 1907	MT-GLAZE 180 JA 1/16W
R2915	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R2916	401 105 0504	MT-GLAZE 1K JA 1/16W

LOCATION	PARTS No.	DESCRIPTION
R2917	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R2920	401 105 2706	MT-GLAZE 220 JA 1/16W
R3101	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R3102	401 105 0702	MT-GLAZE 100K JA 1/16W
R3201	401 105 4007	MT-GLAZE 330 JA 1/16W
R3202	401 105 5509	MT-GLAZE 470K JA 1/16W
R3203	401 105 4700	MT-GLAZE 39K JA 1/16W
R3204	401 105 5509	MT-GLAZE 470K JA 1/16W
R3205	401 105 1204	MT-GLAZE 120K JA 1/16W
R3206	401 105 0603	MT-GLAZE 10K JA 1/16W
R3207	401 105 3901	MT-GLAZE 33 JA 1/16W
R3208	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R3209	401 105 5400	MT-GLAZE 47K JA 1/16W
R3210	401 105 5400	MT-GLAZE 47K JA 1/16W
R3211	401 105 4007	MT-GLAZE 330 JA 1/16W
R3212	401 113 7106	MT-GLAZE 24K JA 1/16W
R3213	401 105 4007	MT-GLAZE 330 JA 1/16W
R3214	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R3215	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R3220	401 105 5400	MT-GLAZE 47K JA 1/16W
R3301	401 105 0603	MT-GLAZE 10K JA 1/16W
R3302	401 105 0603	MT-GLAZE 10K JA 1/16W
R3303	401 105 5400	MT-GLAZE 47K JA 1/16W
R3304	401 105 8104	MT-GLAZE 56K JA 1/16W
R3305	401 105 5400	MT-GLAZE 47K JA 1/16W
R3306	401 105 5400	MT-GLAZE 47K JA 1/16W
R3307	401 038 0602	MT-GLAZE 220 JA 1/10W
R3308	401 037 5202	MT-GLAZE 100 JA 1/10W
R3309	401 105 0702	MT-GLAZE 100K JA 1/16W
R3351	401 105 5202	MT-GLAZE 470 JA 1/16W
R3352	401 112 8005	MT-GLAZE 5.6 JA 1/16W
R3401	401 105 0504	MT-GLAZE 1K JA 1/16W
R3402	401 105 0702	MT-GLAZE 100K JA 1/16W
R3501	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3502	401 105 0504	MT-GLAZE 1K JA 1/16W
R3503	401 105 0504	MT-GLAZE 1K JA 1/16W
R3504	401 105 0603	MT-GLAZE 10K JA 1/16W
R3505	401 105 0603	MT-GLAZE 10K JA 1/16W
R3506	401 105 0603	MT-GLAZE 10K JA 1/16W
R3508	401 105 0702	MT-GLAZE 100K JA 1/16W
R3509	401 105 0603	MT-GLAZE 10K JA 1/16W
R3512	401 105 8005	MT-GLAZE 1M JA 1/16W
R3513	401 105 0504	MT-GLAZE 1K JA 1/16W
R3514	401 114 0908	MT-GLAZE 3.3M JA 1/16W
R3516	401 105 0504	MT-GLAZE 1K JA 1/16W
R3517	401 105 0702	MT-GLAZE 100K JA 1/16W
R3521	401 167 2508	MT-FILM 100K DD 1/16W
R3522	401 105 1600	MT-GLAZE 15K JA 1/16W
R3523	401 167 2508	MT-FILM 100K DD 1/16W
R3524	401 105 3505	MT-GLAZE 270K JA 1/16W
R3525	401 105 0603	MT-GLAZE 10K JA 1/16W
R3526	401 105 5400	MT-GLAZE 47K JA 1/16W
R3527	401 105 5202	MT-GLAZE 470 JA 1/16W
R3532	401 105 0702	MT-GLAZE 100K JA 1/16W
R3571	401 105 0504	MT-GLAZE 1K JA 1/16W
R3572	401 105 0504	MT-GLAZE 1K JA 1/16W
R3573	401 105 5400	MT-GLAZE 47K JA 1/16W
R3575	401 105 0603	MT-GLAZE 10K JA 1/16W
R3576	401 105 0603	MT-GLAZE 10K JA 1/16W
R3591	401 105 2706	MT-GLAZE 220 JA 1/16W
R3592	401 105 5806	MT-GLAZE 56 JA 1/16W
R3593	401 105 5806	MT-GLAZE 56 JA 1/16W
R3601	401 105 2904	MT-GLAZE 22K JA 1/16W
R3602	401 158 4108	MT-GLAZE 4.7 JA 1/16W
R3603	401 158 4108	MT-GLAZE 4.7 JA 1/16W
R3604	401 158 4108	MT-GLAZE 4.7 JA 1/16W
R3605	401 105 4700	MT-GLAZE 39K JA 1/16W
R3606	401 105 0702	MT-GLAZE 100K JA 1/16W
R3607	401 105 0504	MT-GLAZE 1K JA 1/16W
R3608	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R3609	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R3610	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3801	401 105 8104	MT-GLAZE 56K JA 1/16W
R3802	401 105 8104	MT-GLAZE 56K JA 1/16W
R3803	401 105 8104	MT-GLAZE 56K JA 1/16W
R3804	401 105 1105	MT-GLAZE 12K JA 1/16W
R3805	401 110 8601	MT-GLAZE 1 JA 1/10W
R3806	401 110 8601	MT-GLAZE 1 JA 1/10W
R3807	401 105 3505	MT-GLAZE 270K JA 1/16W
R3808	401 105 4700	MT-GLAZE 39K JA 1/16W

LOCATION	PARTS No.	DESCRIPTION
R3809	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R3810	401 105 4205	MT-GLAZE 33K JA 1/16W
R3811	401 105 8005	MT-GLAZE 1M JA 1/16W
R3812	401 105 0504	MT-GLAZE 1K JA 1/16W
R3814	401 105 0504	MT-GLAZE 1K JA 1/16W
R3815	401 105 5202	MT-GLAZE 470 JA 1/16W
R3816	401 105 5103	MT-GLAZE 47 JA 1/16W
R3817	401 105 5103	MT-GLAZE 47 JA 1/16W
R3818	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3820	401 105 0603	MT-GLAZE 10K JA 1/16W
R3821	401 105 0603	MT-GLAZE 10K JA 1/16W
R3901	401 105 0504	MT-GLAZE 1K JA 1/16W
R3902	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R3905	401 105 5905	MT-GLAZE 560 JA 1/16W
R3906	401 167 0306	MT-FILM 10K DU 1/16W
R3907	401 167 0306	MT-FILM 10K DU 1/16W
R3908	401 105 0702	MT-GLAZE 100K JA 1/16W
(SWITCHES)		
S3101	636 040 8456	SW,PUSH
S3102	636 040 8456	SW,PUSH
S3103	636 025 2950	SW,PUSH
S3104	636 025 2950	SW,PUSH
S3105	645 000 1390	SW,SLIDE 1P-2TX1
S3106	645 000 1406	SW,SLIDE 1P-3TX1
S3107	636 036 0358	SW,PUSH
S3108	636 036 0358	SW,PUSH
S3109	636 025 2950	SW,PUSH
S3110	636 025 2950	SW,PUSH
S3111	636 025 2950	SW,PUSH
S3112	636 036 0358	SW,PUSH
S3113	636 036 0358	SW,PUSH
S3114	636 025 2950	SW,PUSH
S3115	636 025 2950	SW,PUSH
(FILTER)		
T1202	636 040 0894	FILTER
(VARIABLE RESISTORS)		
VR101	636 019 7909	SVR 10K
OR	636 039 8467	VR,SEMI 10KB
OR	645 000 0232	VR,SEMI 10KS
OR	636 036 2109	VR,SEMI 10KB
VR102	636 019 8074	SVR 47K
OR	636 039 8634	VR,SEMI 47KB
OR	645 000 0270	VR,SEMI 47KS
OR	636 036 2352	VR,SEMI 47KB
VR103	636 019 7909	SVR 10K
OR	636 039 8467	VR,SEMI 10KB
OR	645 000 0232	VR,SEMI 10KS
OR	636 036 2109	VR,SEMI 10KB
VR104	636 019 7909	SVR 10K
OR	636 039 8467	VR,SEMI 10KB
OR	645 000 0232	VR,SEMI 10KS
OR	636 036 2109	VR,SEMI 10KB
VR106	636 019 7909	SVR 10K
OR	636 039 8467	VR,SEMI 10KB
OR	645 000 0232	VR,SEMI 10KS
OR	636 036 2109	VR,SEMI 10KB
VR108	636 019 8050	SVR 470
OR	636 039 8610	VR,SEMI 470B
OR	645 000 0157	VR,SEMI 470S
OR	636 036 2338	VR,SEMI 470B
VR111	636 019 8067	SVR 4.7K
OR	636 039 8627	VR,SEMI 4.7KB
OR	645 000 0218	VR,SEMI 4.7KS
OR	636 036 2345	VR,SEMI 4.7KB
VR132	636 019 8067	SVR 4.7K
OR	636 039 8627	VR,SEMI 4.7KB
OR	645 000 0218	VR,SEMI 4.7KS
OR	636 036 2345	VR,SEMI 4.7KB
VR201	636 019 7909	SVR 10K
OR	636 039 8467	VR,SEMI 10KB
OR	645 000 0232	VR,SEMI 10KS
OR	636 036 2109	VR,SEMI 10KB
VR351	636 019 7916	SVR 100K
OR	636 039 8474	VR,SEMI 100KB
OR	645 000 0294	VR,SEMI 100KS
OR	636 036 2116	VR,SEMI 100KB

(CRYSTAL DEVICES)

LOCATION	PARTS No.	DESCRIPTION
X1201	636 040 0924	CRYSTAL 4.433619MHZ
OR	636 040 0931	CRYSTAL 4.433619MHZ
X3501	645 004 8876	OSC,CRYSTAL 17.578125MHZ
OR	645 004 8883	OSC,CRYSTAL 17.578125MHZ
X3502	636 040 1129	OSC,CRYSTAL 32.768KHZ

COMPL,PWB,PW-1

COMPL.No. 636 045 2725

(MISCELLANEOUSES)

LOCATION	PARTS No.	DESCRIPTION
A3001 ⚠	645 004 8869	UNIT,DC/DC CONVERTOR
CN303	645 000 1413	JACK,EARPHONE
CN304	636 040 0986	JACK,DC
CN306	636 039 9358	PLATE SPRING,BATTERY
CN307	636 039 9358	PLATE SPRING,BATTERY

(CAPACITOR)

LOCATION	PARTS No.	DESCRIPTION
C3001	403 121 2302	ELECT 470U M 10V

(FUSE)

LOCATION	PARTS No.	DESCRIPTION
F3001 ⚠	636 040 8463	PROTECTOR, 3.0A, 125V

(SWITCHES)

LOCATION	PARTS No.	DESCRIPTION
S3051	645 000 1390	SW,SLIDE 1P-2TX1
S3052	636 025 0543	SW,PUSH
S3053	645 001 9869	SW,PUSH 1P-2TX1

COMPL,PWB,TC-1

COMPL.No. 636 045 4392

(MISCELLANEOUS)

LOCATION	PARTS No.	DESCRIPTION
CN932	636 034 4440	CONNECTOR,24P

(CAPACITORS)

LOCATION	PARTS No.	DESCRIPTION
C9301	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9303	403 175 4505	ELECT 47U M 6.3V
OR	403 279 0502	ELECT 47U M 6.3V
C9304	403 068 0409	CERAMIC 0.1U Z 25V
OR	403 116 2508	CERAMIC 0.1U Z 25V
OR	403 109 7909	CERAMIC 0.1U Z 25V
C9305	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9306	403 134 7400	CERAMIC 1U Z 16V
OR	403 176 9103	CERAMIC 1U Z 16V
OR	403 176 3200	CERAMIC 1U Z 25V
C9307	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9308	403 155 2101	CERAMIC 1500P K 50V
OR	403 235 5404	CERAMIC 1500P J 50V
C9309	403 155 2101	CERAMIC 1500P K 50V
OR	403 235 5404	CERAMIC 1500P J 50V
C9310	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9311	403 155 1500	CERAMIC 180P J 50V
OR	403 235 0904	CERAMIC 181P J 50V
OR	403 152 2807	CERAMIC 180P J 50V
C9312	403 155 1500	CERAMIC 180P J 50V
OR	403 235 0904	CERAMIC 181P J 50V
OR	403 152 2807	CERAMIC 180P J 50V
C9313	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9314	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9315	403 134 7400	CERAMIC 1U Z 16V
OR	403 176 9103	CERAMIC 1U Z 16V
OR	403 176 3200	CERAMIC 1U Z 25V
C9316	403 134 7400	CERAMIC 1U Z 16V
OR	403 176 9103	CERAMIC 1U Z 16V
OR	403 176 3200	CERAMIC 1U Z 25V
C9317	403 155 1807	CERAMIC 0.01U K 25V
OR	403 237 8502	CERAMIC 0.01V K 25V
OR	403 176 0100	CERAMIC 0.01U K 25V
C9318	403 155 1807	CERAMIC 0.01U K 25V
OR	403 237 8502	CERAMIC 0.01V K 25V
OR	403 176 0100	CERAMIC 0.01U K 25V
C9319	403 175 4505	ELECT 47U M 6.3V
OR	403 279 0502	ELECT 47U M 6.3V
C9320	403 068 0409	CERAMIC 0.1U Z 25V
OR	403 116 2508	CERAMIC 0.1U Z 25V
OR	403 109 7909	CERAMIC 0.1U Z 25V
C9322	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9323	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9324	403 167 1505	TA-SOLID 6.8U M 6.3V
OR	403 279 9000	TA-SOLID 6.8U M 6.3V
C9325	403 134 7400	CERAMIC 1U Z 16V
OR	403 176 9103	CERAMIC 1U Z 16V
OR	403 176 3200	CERAMIC 1U Z 25V
C9326	403 155 1807	CERAMIC 0.01U K 25V
OR	403 237 8502	CERAMIC 0.01V K 25V
OR	403 176 0100	CERAMIC 0.01U K 25V
C9331	403 134 7400	CERAMIC 1U Z 16V
OR	403 176 9103	CERAMIC 1U Z 16V
OR	403 176 3200	CERAMIC 1U Z 25V
C9332	403 192 0405	TA-SOLID 10U M 6.3V
OR	403 276 7405	TA-SOLID 10U M 6.3V
C9333	403 192 2201	TA-SOLID 15U M 16V
OR	403 276 8105	TA-SOLID 15U M 16V
C9334	403 068 0409	CERAMIC 0.1U Z 25V
OR	403 116 2508	CERAMIC 0.1U Z 25V
OR	403 109 7909	CERAMIC 0.1U Z 25V
C9335	403 155 2200	CERAMIC 3300P K 50V
OR	403 224 5903	CERAMIC 3300P K 50V
C9336	403 155 1807	CERAMIC 0.01U K 25V
OR	403 237 8502	CERAMIC 0.01V K 25V
OR	403 176 0100	CERAMIC 0.01U K 25V
C9337	403 155 1807	CERAMIC 0.01U K 25V
OR	403 237 8502	CERAMIC 0.01V K 25V
OR	403 176 0100	CERAMIC 0.01U K 25V
C9338	403 155 1807	CERAMIC 0.01U K 25V
OR	403 237 8502	CERAMIC 0.01V K 25V
OR	403 176 0100	CERAMIC 0.01U K 25V
C9339	403 155 1807	CERAMIC 0.01U K 25V
OR	403 237 8502	CERAMIC 0.01V K 25V
OR	403 176 0100	CERAMIC 0.01U K 25V
C9340	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9341	403 155 1807	CERAMIC 0.01U K 25V
OR	403 237 8502	CERAMIC 0.01V K 25V
OR	403 176 0100	CERAMIC 0.01U K 25V
C9343	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9344	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9345	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9346	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9347	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9348	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9350	403 068 0409	CERAMIC 0.1U Z 25V
OR	403 116 2508	CERAMIC 0.1U Z 25V
OR	403 109 7909	CERAMIC 0.1U Z 25V
C9353	403 134 7400	CERAMIC 1U Z 16V
OR	403 176 9103	CERAMIC 1U Z 16V
OR	403 176 3200	CERAMIC 1U Z 25V
C9354	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9359	403 164 0204	CERAMIC 0.1U Z 25V

LOCATION	PARTS No.	DESCRIPTION
C9359	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9361	403 157 2505	CERAMIC 27P J 50V
OR	403 234 9908	CERAMIC 27P J 50V
OR	403 229 4802	CERAMIC 27P J 50V
C9362	403 157 2901	CERAMIC 47P J 50V
OR	403 235 0201	CERAMIC 47P J 50V
OR	403 229 5106	CERAMIC 47P J 50V
C9371	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9372	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9374	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9381	403 155 2200	CERAMIC 3300P K 50V
OR	403 224 5903	CERAMIC 3300P K 50V
C9382	403 155 2200	CERAMIC 3300P K 50V
OR	403 224 5903	CERAMIC 3300P K 50V
C9391	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9392	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9393	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9394	403 164 0204	CERAMIC 0.1U Z 25V
OR	403 279 0106	CERAMIC 0.1U Z 25V
OR	403 176 0209	CERAMIC 0.1U Z 25V
C9396	403 169 2807	CERAMIC 330P J 50V
OR	403 235 1208	CERAMIC 330P J 50V
OR	403 229 6202	CERAMIC 330P J 50V
(DIODE)		
D9301	407 134 7200	DIODE MA141K-TX
(INTEGRATED CIRCUITS)		
IC931	409 322 5708	IC LC98000A-920
IC932	410 199 9300	IC MB89677A-103
IC933	409 307 5600	IC MPC17A85VM-EL
IC934	409 155 7306	IC TC4S71F(TE85L)
OR	409 184 8008	IC SC14S71FEL
IC935	409 074 1904	IC NJM3414M-T1
IC936	409 142 2000	IC LA6358NM-T1
(COILS)		
L9301	636 034 9797	COIL,INDUCTOR 10UHK
L9302	636 035 3589	COIL,INDUCTOR 22UHK
L9303	636 035 4227	COIL,INDUCTOR 330UHK
L9304	636 035 4258	COIL,INDUCTOR 56UHK
(TRANSISTORS)		
Q9301	405 129 2100	TR UMT1N-TL
OR	405 106 4608	TR XP4401-TW
Q9302	405 129 2209	TR UMX1N-TL
OR	405 106 4707	TR XP4501-TW
Q9304	405 129 2209	TR UMX1N-TL
OR	405 106 4707	TR XP4501-TW
Q9305	405 129 2209	TR UMX1N-TL
OR	405 106 4707	TR XP4501-TW
Q9306	405 129 2209	TR UMX1N-TL
OR	405 106 4707	TR XP4501-TW
Q9311	405 129 2308	TR UMZ1N-TL
OR	405 106 4806	TR XP4601-TW
Q9313	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q9315	405 123 3707	TR DTC115EU-T106
Q9316	405 076 5902	TR FMA5-T99
Q9317	405 079 2007	TR FMG8-T99
Q9320	405 077 3402	TR 2SC4211-6-TL
OR	405 092 4101	TR 2SC4081-R-T106
OR	405 102 5609	TR 2SD1819A-R-TX
Q9322	405 129 2209	TR UMX1N-TL
OR	405 106 4707	TR XP4501-TW
Q9331	405 129 2209	TR UMX1N-TL
Q9331	405 106 4707	TR XP4501-TW
Q9332	405 129 2209	TR UMX1N TL
OR	405 106 4707	TR XP4501-TW
Q9341	405 129 2308	TR UMZ1N TL
OR	405 106 4806	TR XP4601-TW
Q9342	405 129 2308	TR UMZ1N TL
OR	405 106 4806	TR XP4601-TW
(RESISTORS)		
R9301	401 105 4700	MT-GLAZE 39K JA 1/16W
R9302	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R9303	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R9304	401 105 4700	MT-GLAZE 39K JA 1/16W
R9305	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R9306	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R9307	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9308	401 105 5905	MT-GLAZE 560 JA 1/16W
R9309	401 105 5905	MT-GLAZE 560 JA 1/16W
R9311	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9312	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R9313	401 105 5905	MT-GLAZE 560 JA 1/16W
R9314	401 105 5905	MT-GLAZE 560 JA 1/16W
R9315	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R9316	401 105 0504	MT-GLAZE 1K JA 1/16W
R9317	401 105 0504	MT-GLAZE 1K JA 1/16W
R9318	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R9319	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R9320	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R9321	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R9322	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R9323	401 105 0504	MT-GLAZE 1K JA 1/16W
R9324	401 105 5202	MT-GLAZE 470 JA 1/16W
R9325	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R9326	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R9327	401 105 0504	MT-GLAZE 1K JA 1/16W
R9328	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R9329	401 105 5202	MT-GLAZE 470 JA 1/16W
R9330	401 105 1600	MT-GLAZE 15K JA 1/16W
R9331	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R9332	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R9333	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R9334	401 105 2904	MT-GLAZE 22K JA 1/16W
R9335	401 105 2904	MT-GLAZE 22K JA 1/16W
R9336	401 105 2904	MT-GLAZE 22K JA 1/16W
R9337	401 105 2102	MT-GLAZE 18K JA 1/16W
R9338	401 105 2904	MT-GLAZE 22K JA 1/16W
R9339	401 105 2102	MT-GLAZE 18K JA 1/16W
R9340	401 105 1600	MT-GLAZE 15K JA 1/16W
R9341	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R9342	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R9343	401 158 4108	MT-GLAZE 4.7 JA 1/16W
R9344	401 105 3000	MT-GLAZE 220K JA 1/16W
R9345	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9348	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R9351	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R9352	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R9353	401 105 0504	MT-GLAZE 1K JA 1/16W
R9354	401 105 0504	MT-GLAZE 1K JA 1/16W
R9356	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9361	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R9364	401 105 0702	MT-GLAZE 100K JA 1/16W
R9365	401 105 0504	MT-GLAZE 1K JA 1/16W
R9368	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9369	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9370	401 105 5202	MT-GLAZE 470 JA 1/16W
R9371	401 090 2002	MT-GLAZE 3.9 JA 1/10W
R9372	401 090 2002	MT-GLAZE 3.9 JA 1/10W
R9373	401 166 8808	MT-FILM 2.2K DU 1/16W
R9375	401 105 0306	MT-GLAZE 10 JA 1/16W
R9376	401 167 0306	MT-FILM 10K DU 1/16W
R9377	401 105 0702	MT-GLAZE 100K JA 1/16W
R9378	401 105 8104	MT-GLAZE 56K JA 1/16W
R9379	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R9380	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R9383	401 105 0504	MT-GLAZE 1K JA 1/16W
R9384	401 105 0504	MT-GLAZE 1K JA 1/16W
R9385	401 105 0504	MT-GLAZE 1K JA 1/16W
R9390	401 105 0702	MT-GLAZE 100K JA 1/16W
R9392	401 105 4205	MT-GLAZE 33K JA 1/16W
R9393	401 105 1709	MT-GLAZE 150K JA 1/16W

LOCATION	PARTS No.	DESCRIPTION
R9394	401 105 6100	MT-GLAZE 560K JA 1/16W
R9395	401 105 4809	MT-GLAZE 390K JA 1/16W
R9396	401 105 0702	MT-GLAZE 100K JA 1/16W
R9397	401 105 0702	MT-GLAZE 100K JA 1/16W
R9398	401 105 4304	MT-GLAZE 330K JA 1/16W
R9399	401 105 5400	MT-GLAZE 47K JA 1/16W
R9402	401 105 4700	MT-GLAZE 39K JA 1/16W
R9404	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R9405	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R9406	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R9408	401 105 6704	MT-GLAZE 680K JA 1/16W
R9409	401 105 5905	MT-GLAZE 560 JA 1/16W
R9413	401 105 0702	MT-GLAZE 100K JA 1/16W
R9414	401 105 2102	MT-GLAZE 18K JA 1/16W
R9415	401 105 1709	MT-GLAZE 150K JA 1/16W
R9416	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R9417	401 105 1600	MT-GLAZE 15K JA 1/16W
R9419	401 105 0603	MT-GLAZE 10K JA 1/16W
R9421	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R9422	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R9423	401 105 5202	MT-GLAZE 470 JA 1/16W
R9424	401 105 5905	MT-GLAZE 560 JA 1/16W
R9425	401 105 5905	MT-GLAZE 560 JA 1/16W
R9426	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R9427	401 105 0702	MT-GLAZE 100K JA 1/16W
R9428	401 105 0702	MT-GLAZE 100K JA 1/16W
R9429	401 105 0603	MT-GLAZE 10K JA 1/16W
R9430	401 105 0603	MT-GLAZE 10K JA 1/16W
R9431	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R9432	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R9433	401 105 5202	MT-GLAZE 470 JA 1/16W
R9434	401 105 5905	MT-GLAZE 560 JA 1/16W
R9435	401 105 5905	MT-GLAZE 560 JA 1/16W
R9436	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R9437	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R9438	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R9441	401 105 0504	MT-GLAZE 1K JA 1/16W
R9442	401 105 0504	MT-GLAZE 1K JA 1/16W
R9451	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R9452	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R9453	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R9454	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R9457	401 105 5400	MT-GLAZE 47K JA 1/16W
R9463	401 105 0603	MT-GLAZE 10K JA 1/16W
R9464	401 105 0702	MT-GLAZE 100K JA 1/16W
R9465	401 105 0702	MT-GLAZE 100K JA 1/16W
R9466	401 105 0702	MT-GLAZE 100K JA 1/16W
R9467	401 105 0702	MT-GLAZE 100K JA 1/16W
R9468	401 105 0702	MT-GLAZE 100K JA 1/16W
R9469	401 105 0504	MT-GLAZE 1K JA 1/16W
R9470	401 105 0504	MT-GLAZE 1K JA 1/16W
R9471	401 105 0603	MT-GLAZE 10K JA 1/16W
R9482	401 105 0603	MT-GLAZE 10K JA 1/16W
R9484	401 105 0603	MT-GLAZE 10K JA 1/16W
R9491	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9492	401 105 7909	MT-GLAZE 0.000 ZA 1/16W

(VARIABLE RESISTORS)

VR931	636 019 8005	SVR 220K
VR932	636 019 8005	SVR 220K

COMPL,PWB,VF-1

COMPL.No. 636 045 5016

(CAPACITORS)

LOCATION	PARTS No.	DESCRIPTION
C9703	403 167 0607	TA-SOLID 1U M 16V
OR	403 091 0407	TA-SOLID 1U M 16V
C9704	403 070 8806	CERAMIC 1500P K 50V
C9705	403 134 8100	ELECT 100U M 6.3V
C9706	403 207 0307	CERAMIC 1U Z 16V
OR	403 278 9605	CERAMIC 1U Z 16V
OR	403 196 3105	CERAMIC 1U Z 16V
C9707	403 065 8002	MT-POLYEST 0.1U J 63V
C9708	403 026 2902	CERAMIC 47P J 50V
C9709	403 070 2606	CERAMIC 0.1U Z 50V
C9711	403 068 0409	CERAMIC 0.1U Z 25V
OR	403 116 2508	CERAMIC 0.1U Z 25V
OR	403 109 7909	CERAMIC 0.1U Z 25V
C9713	403 093 4106	OS-SOLID 15U M 6.3V
C9714 ⚠	403 076 9302	CERAMIC 2200P Z 1K
C9715 ⚠	403 175 2600	CERAMIC 1000P Z 1K
C9716	403 167 6203	CERAMIC 0.022U K 100V
C9717	403 109 6407	ELECT 10U M 50V
C9718	403 105 9501	CERAMIC 1000P J 50V
C9719	403 107 9509	ELECT 100U M 10V
C9720	403 248 4104	POLYESTER 6800P J 100V

(DIODES)

D9701	407 069 4909	DIODE DSB010
D9702	407 066 8207	DIODE SB02-09CP

(INTEGRATED CIRCUIT)

IC971	409 283 7100	IC BA7149F-T1

(COILS)

L9701	613 015 3623	COIL,INDUCTOR 100UHK
L9702	636 040 2850	COIL,LINEARITY

(TRANSISTORS)

Q9701	405 115 9007	TR 2SD1616-U
Q9702	405 043 8905	TR 2SA1257-G5

(RESISTORS)

R9701	401 037 5707	MT-GLAZE 100K JA 1/10W
R9702	401 038 5409	MT-GLAZE 390K JA 1/10W
R9703	401 037 5608	MT-GLAZE 10K JA 1/10W
R9704	401 038 1807	MT-GLAZE 27 JA 1/10W
R9707	401 037 9309	MT-GLAZE 18K JA 1/10W
R9708	401 090 2002	MT-GLAZE 3.9 JA 1/10W
R9711	401 089 2907	MT-GLAZE 4.7K GA 1/10W
R9712	401 147 4003	MT-GLAZE 22K GA 1/10W
R9713	401 038 3900	MT-GLAZE 3.3M JA 1/10W
R9714	401 038 3504	MT-GLAZE 330 JA 1/10W
R9716	401 037 8203	MT-GLAZE 1.5M JA 1/10W
R9717	401 038 3900	MT-GLAZE 3.3M JA 1/10W
R9718	401 037 8203	MT-GLAZE 1.5M JA 1/10W
R9719	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R9720	401 037 6902	MT-GLAZE 120K JA 1/10W
R9721	401 037 8203	MT-GLAZE 1.5M JA 1/10W
R9722	401 037 5400	MT-GLAZE 1K JA 1/10W
R9723	401 038 5508	MT-GLAZE 4.7 JA 1/10W
R9751	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R9753	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R9754	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R9755	401 098 7603	MT-GLAZE 2.2 JA 1/10W
R9756	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R9757	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R9758	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R9759	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R9760	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R9761	401 035 4108	MT-GLAZE 0.000 ZA 1/8W

(TRANS)

T9701 ⚠	636 040 2836	TRANS,FLYBACK

(VARIABLE RESISTORS)

VR971	636 040 1891	VR,SEMI 50KB
VR972	636 040 1907	VR,SEMI 200B
VR974	636 040 2867	VR,SEMI 5.6MB
VR975	636 040 2874	VR,SEMI 2.2MB

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PL550018
Service Manual PL
0613602 3 Menge: 1

SANYO

Mar./'94/3,450 NS **Printed in Japan**

SANYO Electric Co., Ltd.
Osaka, Japan

SCHEMATIC DIAGRAM
&
PRINTED WIRING BOARD

VM-RZ2R
VM-D90R

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CP1 (SERVO/SYSTEM CONTROL/POWER) CIRCUIT Ⓓ

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CP1 (AUDIO)/VF1 (VIEWFINDER) CIRCUIT Ⓕ

CA1/TC1 BOARD (SIDE A) • PW1 BOARD (SIDE A) Ⓖ

CA1/TC1 BOARD (SIDE B) • PW1 BOARD (SIDE B) Ⓗ

CP1 BOARD (SIDE A) • VF1 BOARD (SIDE A) Ⓘ

CP1 BOARD (SIDE B) • VF1 BOARD (SIDE B) Ⓙ

- The voltage shown in red on the circuit diagram is obtained by measurement using a digital voltmeter.
- Note that parts shown with "CAN" below the location No. in the circuit diagram are not used.
- Safety precautions:
  Parts marked with ⚠ are important for ensuring safety. Therefore, never replace any of these parts with a part of a number other than the corresponding specified part No.
- When any part needs to be replaced, refer to the parts list.
- The resistance is expressed in Ω .
- The capacity is expressed in μF unless otherwise specified.
  However, "P" indicates pF. For the electrolytic capacitors, the withstanding voltage (V) is shown.
- The inductance is expressed in mH unless otherwise specified. However, " μ " indicates μH.
- Cautions related to pattern diagram

Side A: Shows the parts viewed from the pattern on the side A.
(The pattern on the side A is shown in red.)
Side B: Shows the parts viewed from the pattern on the side B.
(The pattern on the side B is shown in black.)

But inner two layer's patterns are not shown.

Note:

The circuit and pattern diagrams are prepared for the initial stage of mass production. Therefore, they may be subject to change for improvement.

SANYO

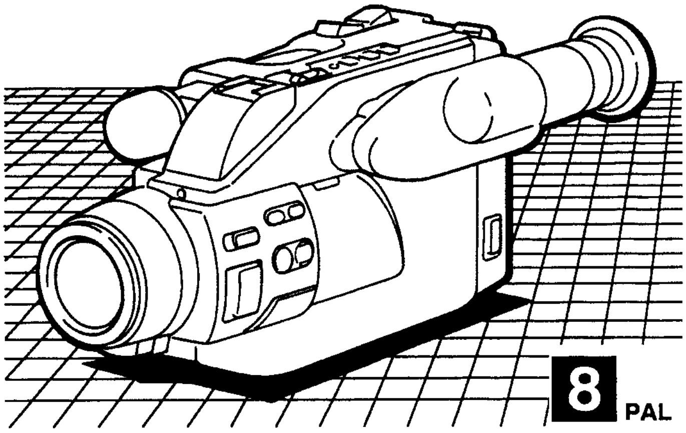
FILE No.

ADJUSTMENT MANUAL

8 mm Camcorder

VM-RZ2R (U.K.)
(EUROPE)
(GENERAL
PAL AREA)

VM-D90R (U.K.)



Specifications

Television system	PAL, CCIR
Video recording system	Rotating 2-head, helical-scan system
Audio recording system	Rotating head, FM system
Cassette type	8 mm video cassette tape
Tape speed	SP : approx. 20.051 mm/sec. LP : approx. 10.058 mm/sec. (playback only)
Maximum recording time	90 minutes (P5-90 cassette) SP mode
Fast forward/ Rewind time	Approx. 7 minutes (P5-90 cassette)
Image sensor	CCD solid-state type (320,000 pixels)
Viewfinder	0.6 inch electronic viewfinder (black and white)
Lens	8 ×zoom F1.8 (f= 6 to 48 mm)
Filter diameter	37 mm
Focus	Fuzzy logic auto focus
White balance	Full auto Fuzzy logic
Iris	Fuzzy logic auto iris
Minimum subject illumination	2 lux (Low light mode)

Subject illumination range	2 to 100,000 lux
Recommended subject illumination	300 lux or more
Power supply	6 V: battery pack 6.5 V: AC adaptor/charger
Power consumption	4.9W during camera recording
Operation temperature range	0 ℃ to 40 ℃ (32 °F to 104 °F)
Storage temperature range	− 20 ℃ to 60 ℃ (− 4 °F to 140 °F)
Dimensions (W) × (H) × (D)	Approx. 116 × 120 × 259 mm
Weight	Approx. 780 g (excluding the battery pack and tape)
Microphone	Electret condenser type, omnidirectional
Video output terminal	Video output 1 Vp-p, 75 ohms unbalanced, negative sync
Audio output terminal	Audio output − 7 dBs, 2.2 kohms or less
Earphone jack	Mini jack, for 8 ohms earphone (monaural)

VM-RZ2P
PRODUCTION CODE No.
126 043 03 (U.K.)
126 043 07 (EUROPE)
126 043 08 (GENERAL PAL AREA)

VM-D90R
PRODUCTION CODE No.
126 043 04 (U.K.)

- Specifications and external appearance are subject to change without notice.

ER20P/E, EX, GX, EDX

REFERENCE NO. AM 550018

The VM-RZ2R and VM-D90R models are almost exactly the same as the VM-RZ3P/2P and VM-D90P models, and thus the Circuit Description section has been omitted.

Please refer to the Block Diagram section of this manual.

For other information, please refer to the materials indicated below.

Material	Model Name	Reference No.
Parts List and Circuit Diagram	VM-RZ2R/D90R	PL 550018
Supplement of Mechanism Manual	RS MECHANISM	MS 550018
AC Adaptor/charger		
Service Manual	VAR-S15	SM 550008
Supplement of Service Manual	VAR-S15A	SS 550018

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1. ABBREVIATIONS

【A】	A/D	Analog-To-Digital
	A. MUTE	Audio Mute
	A	Audio
	ACK	Automatic Chrominance Killer
	ADJ	Adjustment
	AE	Automatic Exposure
	AF	Auto-focus
	AFC	Automatic Frequency Control
	AFM	Audio Frequency Modulation
	AGC	Automatic Gain Control
	AMP	Amplifier
	ATF	Automatic Track Finding
	ATT	Attenuator
	AWB	Automatic White Balance
【B】	BLK	Blanking Pulse
	BPF	Band-pass Filter
	BRK	Brake
	BUF	Buffer Amplifier
【C】	C (CHROMA)	Chrominance Signal
	C. BLK	Composite Blanking
	CAP	Capstan
	C. SYNC	Composite Sync Signal
	CAM	Camera
	CAN	Cancel Parts
	CAR	Carrier Signal
	CCD	Charge Coupled Device
	CG	Character Generator
	CL	Checker Land
	CLP	Clamp Pulse
	COM	Common
	COMP	Composite
	CORRE	Correlation
	COUNT.	Counter
	CS	Chip Select
	CST	Cassette
【D】	D/A	Digital-to-Analog
	DAMP	Damping
	DEF	Deflection
	DET	Detector
	DOP	Drop Out Pulse
【E】	EAR	Earphone
	EP	Earphone
	E^{2}PROM	Electorical Erasable And Programmable Read Only Memory
【F】	FWD	Forward
	FE	Flying Erase
	FEP	Flying Erase Pulse
	FF	Fast Forward
	FG	Frequency Generator
	FH	Frequency Horizontal
	FREQ	Frequency
	FSC	Frequency Sub Carrier
【G】	GND	Ground
【H】	H (HORIZ)	Horizontal
	HD	Horizontal Drive
	HHK	Half Horizontal Killer
	HHS	Half Horizontal Shift
	HPF	High-pass Filter
【I】	I/O	In/Out
	I	Current
	ID	Identity
	INS	Insert
	INV	Inverter
	IR	Infrared Rays
	IRIS DET	Iris Detection Signal
【J】	JOG	Jogging
【L】	LI	Lithium Battery
	LIM	Limiter
	LP	Long Play
	LPF	Low-pass Filter
【M】	ME	Metal Evaporated
	MECHA	Mechanism
	MF	Manual Focus
	MIC	Microphone
	MOA	Main Operation Amplifier
	MONI	Monitor
	MP	Metal Particle
【N】	NC	Noise Canceler
	NT	NTSC System
【O】	OSC	Oscillator
	OSD	On-screen Display
【P】	PB	Playback
	PG	Pulse Generator
	PG DOUB	Pulse Gate Doubler
	PI	Phase Invert
	PLL	Phase Locked Loop
	PS	Phase Shift
	PWM	Pulse Width Modulation
【R】	REC	Record
	REG	Regulator
	REV	Reverse
	REW	Rewind
【S】	S/S	Servo/System Control or Start/Stop
	S REEL	Supply Reel
	SCK	Serial Clock
	SI	Serial In
	SO	Serial Out
	SP	Standard Play
	STB	Strobe
	STBY	Stand By
	SW	Switch
【T】	T (TELE)	Telephoto
	T REEL	Take-up Reel
	TC	Time Constant
	TP	Test Point
【V】	V. CENTER	Video Center
	V. MUTE	Video Mute
	V (VERT)	Vertical
	V	Video
	VA	Video Audio
	VBLK	Video Blank
	VC	Video Character
	VCA	Voltage Controlled Amplifier
	VCXO	Voltage Controlled Crystal Oscillator
	VD	Vertical Drive
	VF	Viewfinder
	VR	Variable Resistor
	V_{ss}	Voltage Super Source
【W】	WE	Weighting
	WIDE	Wide Angle
【X】	XO	Criastal Oscillator
	γ	Gamma

2. LEADLESS COMPONENT

2-1. IDENTIFICATION

Leadless Transistors

The identification numbers for leadless transistors are indicated by a code on the surface, using one letter and one numeral, two letters, two letters and one numeral, two numerals, one letter and four numerals, or three letters and one numeral.

Code	Transistor Number	Code	Transistor Number
[Transistor]			
BD	2SB1121-T-P	5C	XP4601-TX
BR	2SB1218A-R-TX	5H	XP4501-TX
BR	2SC4081-R-T106	5K	XP4401-TX
B7	2SB815-B7-TB	5L	XN5501-TW
FL	2SA1434-TB	ES6	2SA1745-6-TL
F5	2SC4399-5-TL	ES7	2SA1745-7-TL
L6	2SC4211-6-TL	101	FC101-TL
M6	2SA1622-6-TL	B1202	2SB1202-S-TL
S1	FMS1-T99	IMT1	IMT1-T110
ZR	2SD1819A-R-TX		
[Digital Transistor]			
A5	FMA5-T99	8C	UN5213-TX
BL	2SA1676-TL	9L	XN1213-TW
BY	2SC4396-TL	9T	XN1211-TW
CL	2SA1677-TL	14	DTC114EU-T106
CY	2SC4397-TL	15	DTA124EU-T106
EY	2SC4398-TL	16	DTA144EU-T106
G2	FMG2-T99	25	DTC124EU-T106
G8	FMG8-T99	26	DTC144EU-T106
G9	FMG9-T99	29	DTC115EU-T106
6B	UN5112-TX	86	DTC144WU-T106
6C	UN5113-TX	108	FC108-TL
7L	XN1113-TW	116	FC116-TL
8B	UN5212-TX		

Note: The codes of digital transistors show only the transistor numbers.

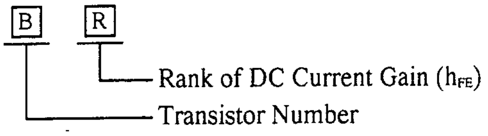
Identification With Two Letters

Use this code and the chart for component identification.

Letter	Transistor Number
B	2SB1218A

Example:

Code	Number
BR	2SB1218A-R



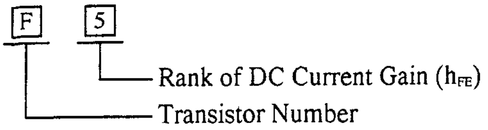
Identification With One Letter and One Numeral

Use this code and the chart for component identification.

Letter	Transistor Number
F	2SC4399

Example:

Code	Number
F5	2SC4399-5



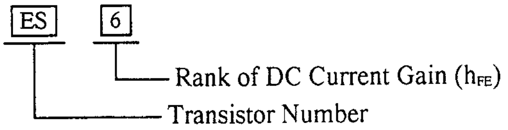
Identification With Two Letters and One Numeral

Use this code and the chart for component identification.

Letter	Transistor Number
ES	2SA1745

Example:

Code	Number
ES6	2SA1745-6



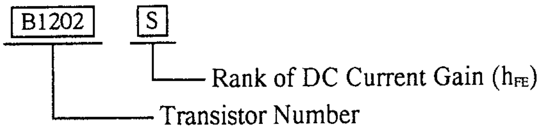
Identification With One Letter and Four Numerals

Use this code and the chart for component identification.

Letter	Transistor Number
B1202	2SB1202

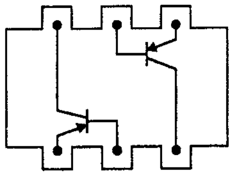
Example:

Code	Number
B1202S	2SB1202-S

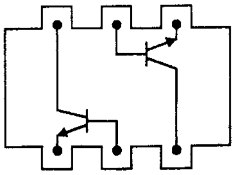


Leadless Transistors Internal Connection Circuit

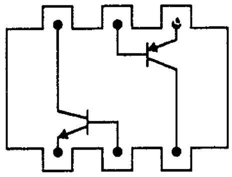
Code 101, IMT1, 5K



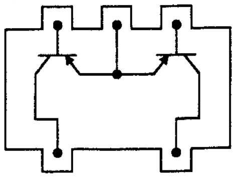
Code 5H



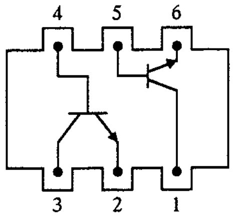
Code 5C



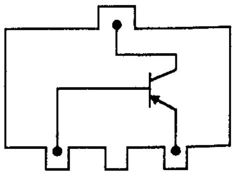
Code S1



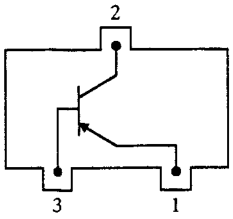
Code 5L



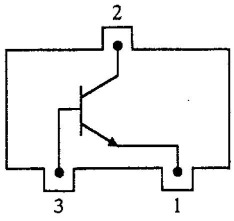
Code B1202



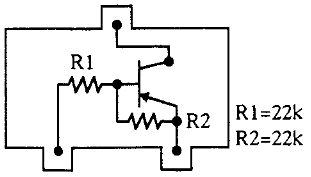
Code M6, ES6, ES7, B7, BR (2SB1218A), BL, FL



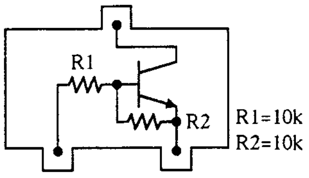
Code L6, ZR BR (2SC4081)



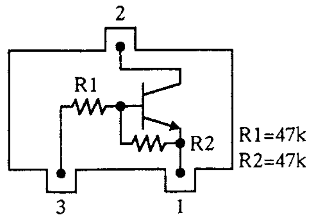
Code CL, 6B, 15


R1
R2
R1=22k
R2=22k

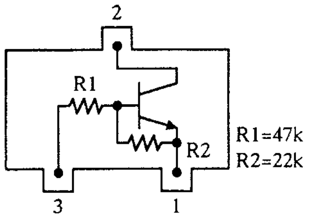
Code EY, 14


R1
R2
R1=10k
R2=10k

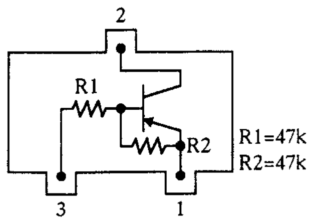
Code BY, 26, 8C


2
R1
R2
R1=47k
R2=47k
3
1

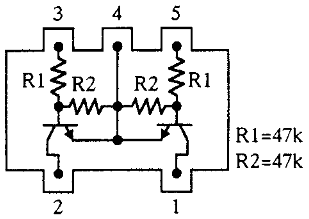
Code 86


2
R1
R2
R1=47k
R2=22k
3
1

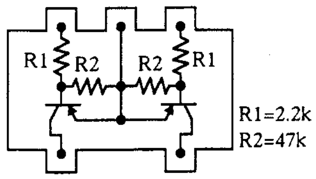
Code BL, 16


2
R1
R2
R1=47k
R2=47k
3
1

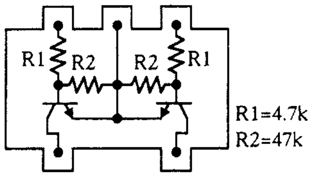
Code G2, 9L,108


3
4
5
R1
R2
R2
R1
R1=47k
R2=47k
2
1

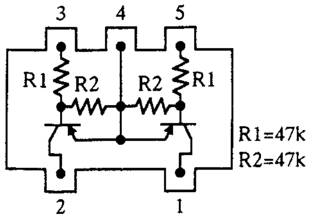
Code A5


R1
R2
R2
R1
R1=2.2k
R2=47k

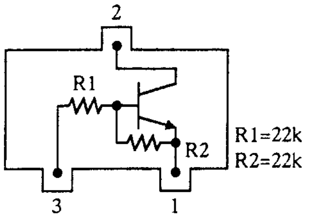
Code G8


R1
R2
R2
R1
R1=4.7k
R2=47k

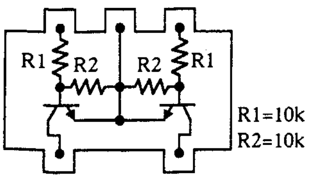
Code 7L


3
4
5
R1
R2
R2
R1
R1=47k
R2=47k
2
1

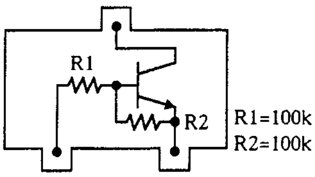
Code CY, 8B, 25


2
R1
R2
R1=22k
R2=22k
3
1

Code G9, 9T,116


R1
R2
R2
R1
R1=10k
R2=10k

Code 29


R1
R2
R1=100k
R2=100k

Leadless Diodes

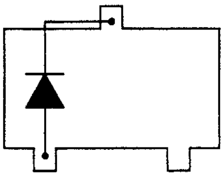
The identification numbers for leadless diodes are indicated by a code on the surface, using one letter and one numeral, one letter, two letters, two letters and one numeral or three numerals.

Code	Diode Number	Code	Diode Number
B	SB05-05-CP-TB	MN	MA141WA-TX
N	DAN202U-T106	MT	MA141WK-TX
A2	DSH015-TL	NP	MA143A-TX
A4	DCF015-TL	M1M	MA721-TX
A6	DCG015-TL	M3H	MA721WA-TX
C3	1SS302-TE85L	822	RD8.2M-T1BB2
W6	DCG010-TL	8.2A	MA3082WA-TX
MH	MA141K-TX	8.2M	MA3082-M-TW

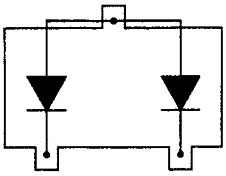
M1M, M3H: Schottky Barrier Diode

The above diodes have the following internal block structures.

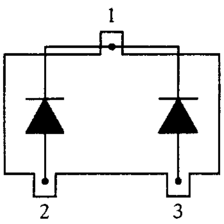
Code B



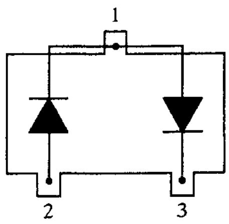
Code A4



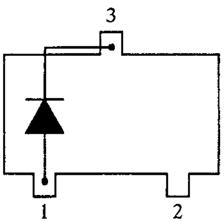
Code N, A6, W6



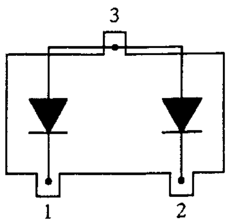
Code C3



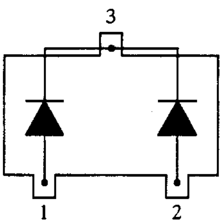
Code MH



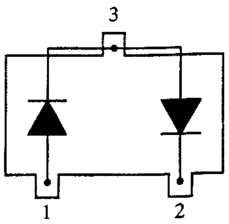
Code MN



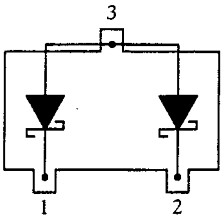
Code MT



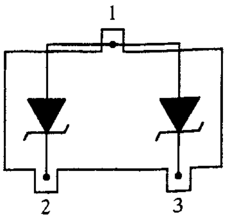
Code NP



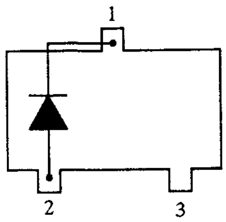
Code M3H



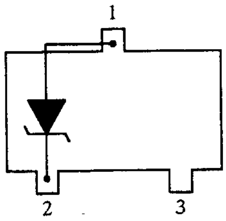
Code 8.2A



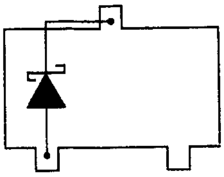
Code A2



Code 822, 8.2M



Code M1M



Leadless Resistors

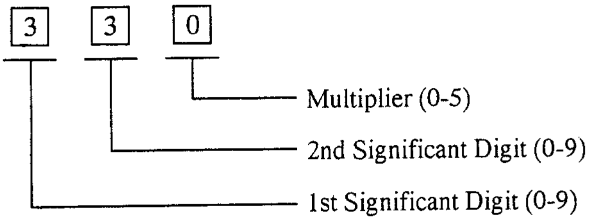
The resistor value is indicated on the surface of the component, using a three-digit number.

Identification for Three Digit Numbers

Read the code following the same procedure used as when reading the color code of a discrete resistor.

Example:

Code	Value
1R2	1 + 0.2= 1.2 ohms (R : Decimal point)
330	33×10^0= 33 ohms
561	56×10^1= 560 ohms
123	12×10^3= 12 kohms

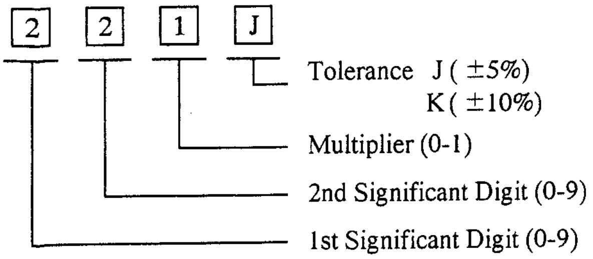

3
3
0
Multiplier (0-5)
2nd Significant Digit (0-9)
1st Significant Digit (0-9)

Leadless Coils

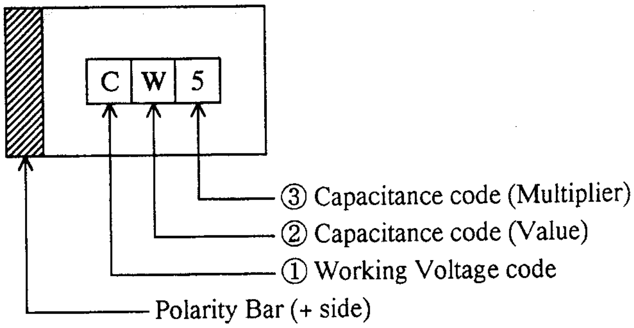
The coil value is indicated on the surface of the component, using three numerals and one letter.

Example:

Code	Value	
2R2J	2.2	μH
220J	22	μH
221J	220	μH


2
2
1
J
Tolerance J (±5%)
K(±10%)
Multiplier (0-1)
2nd Significant Digit (0-9)
1st Significant Digit (0-9)

Leadless Tantalum (1)


C
W
5
③ Capacitance code (Multiplier)
② Capacitance code (Value)
① Working Voltage code
Polarity Bar (+ side)

① W.V. code

Code	G	J	A	C	D	E	V
Working Voltage (V)	4	6.3	10	16	20	25	35

② Capacitance code (Value)

Code	A	E	J	N	S	W
Value	1	1.5	2.2	3.3	4.7	6.8

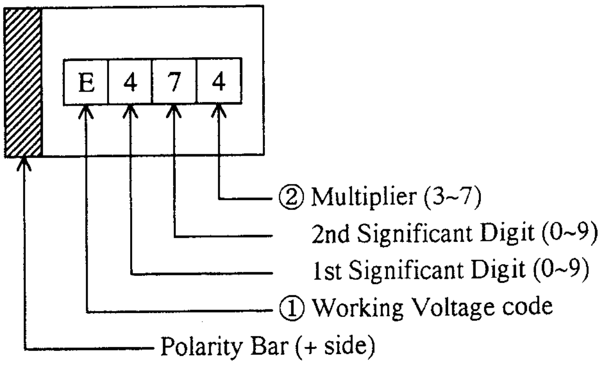
③ Capacitance code (Multiplier)

Code	5	6	7
Multiplier	10^5	10^6	10^7

Example:

Code	Value	
CW5	0.68 μF	16V
AJ6	2.2 μF	10V

Leadless Tantalum (2)


E
4
7
4
② Multiplier (3~7)
2nd Significant Digit (0~9)
1st Significant Digit (0~9)
① Working Voltage code
Polarity Bar (+ side)

① W.V. code

Code	G	J	A	C	D	E	V
Working Voltage (V)	4	6.3	10	16	20	25	35

② Capacitance code (Multiplier)

Code	3	4	5	6	7
Multiplier	10^3	10^4	10^5	10^6	10^7

Example:

Code	Value	
E474	0.47 μF	25V
C105	1.0 μF	16V
J335	3.3 μF	6.3V

2-2. REMOVAL

Replacement procedure for Leadless (Chip) Components

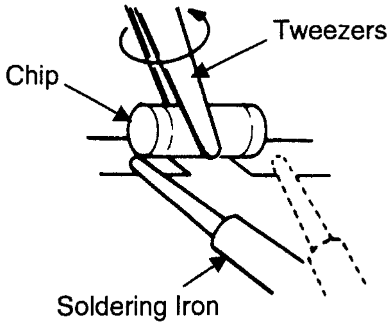
The following procedures are recommended for the replacement of the leadless components used in this unit.

1. Preparation for replacement
   a. Soldering Iron
      Use a pencil-type soldering iron using less than 30 watts.
   b. Solder
      Eutectic Solder (Tin 63%, Lead 37%) is recommended.
   c. Soldering time
      Do not apply heat for more than 4 seconds.
   d. Preheating
      Leadless capacitor must be preheated before installation. (130 ℃ ~150 ℃ , for about two minutes.)

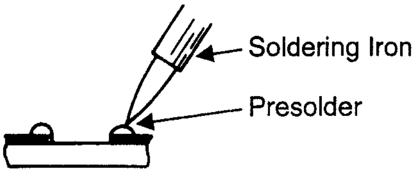
Note: a. Leadless components must not be reused after removal.
b. Excessive mechanical stress and rubbing of the component electrode must be avoided.

2. Removing leadless components
   Grasp the leadless component body with tweezers and alternately apply heat to both electrodes. When the solder on both electrodes is melted, remove the leadless component with a twisting motion.

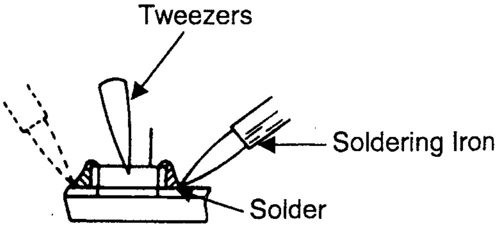
Note: a. Do not attempt to lift the component off the board until the component is completely disconnected from the board by a twisting action.
b. Take care not to break the copper foil on the printed board.



3. Installing leadless components
   a. Presolder the contact points of the circuit board.



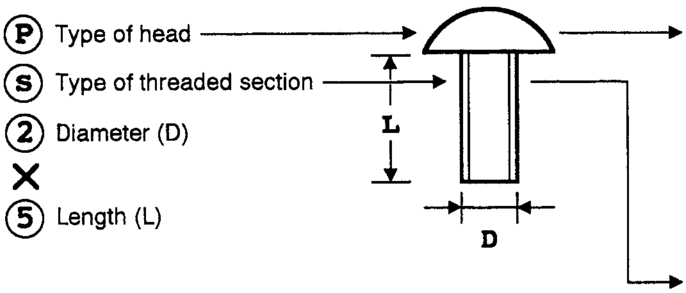
   b. Press the part downward with tweezers and solder both electrodes as shown below.



Note: Do not glue the replacement leadless component to the circuit board.

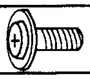
3. DISASSEMBLY

3-1. SCREW/WASHER IDENTIFICATION

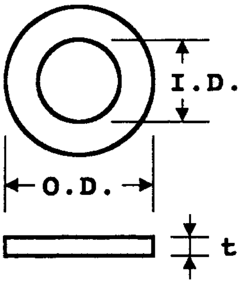


Abbreviation	Name	Shape
No symbol	Special type	▯
P	Pan head	▯
B	Binding head	▯
F	Flat contersunk head	▯

Abbreviation	Name	Shape
No symbol	Machine screw	▭
s	Forming tight (for metal)	▭ ○
p	Forming tight (for plastic)	▭ ○
b	Forming tight (for metal)	▭ ○

Symbol No.	Configuration (Color)	Dimension (mm)
100	(SILVER)	Ps 1.7 × 4
101	(BLACK)	Ps 1.7 × 4
102	(BLACK)	Pp 1.7 × 6
103	(BLACK)	P 2 × 4
104	(BLACK)	Pp 2 × 5
105	(BLACK)	Ps 2 × 6
106	(BLACK)	Pp 2 × 8
107		p 2 × 5
108		Bp 2 × 14
109	(BLACK)	Fp 1.7 × 5
110	(SILVER)	Pp 1.7 × 4
111	(BLACK)	P 1.4 × 2.5
112	(BLACK)	P 1.4 × 3
113	(YELLOW)	P 2 × 6.5
114	(YELLOW)	Ps 1.4 × 1.6
115	(YELLOW)	Ps 1.4 × 2.2
116	(YELLOW)	Ps 1.4 × 3.3
117	(BLACK)	Pp 1.4 × 2
118	(SILVER)	Pp 1.4 × 3.5
119	(BLACK)	1.4 × 2.5
120	(YELLOW)	1.4 × 3
121		Ps 2.6 × 4
122		Ps 3 × 5
123		Pb 2.6 × 10
124	(YELLOW)	p 1.4 × 3.5

[Washer Classification]



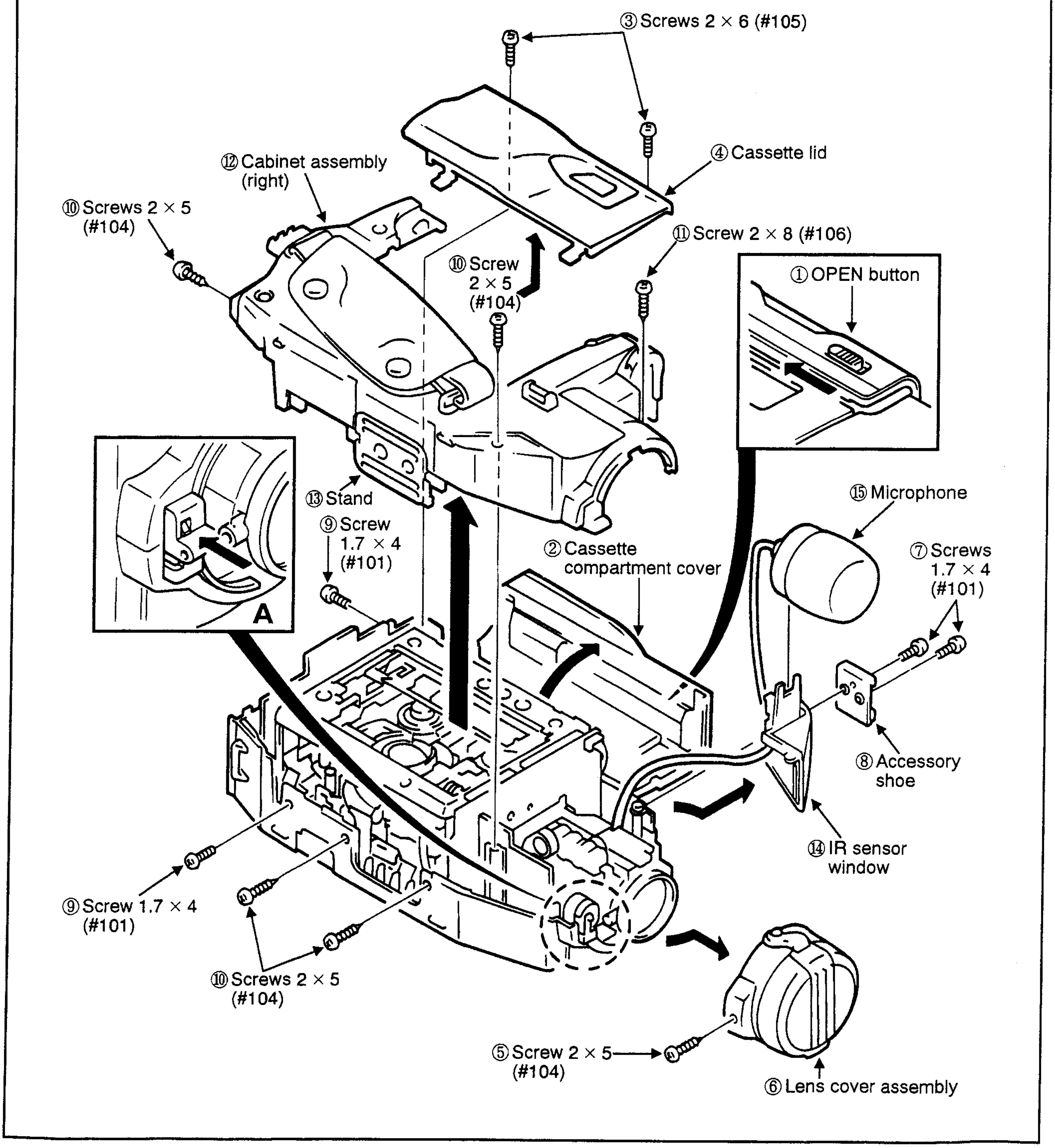
Symbol No.	Configuration	Dimension (mm)
131		O.D.: 3.0 I.D.: 1.2 t: 0.3
132		O.D.: 2.7 I.D.: 1.0 t: 0.25
133		O.D.: 2.0 I.D.: 0.9 t: 0.25
134		O.D.: 3.2 I.D.: 1.5 t: 0.2
135		O.D.: 3.0 I.D.: 1.2 t: 0.13
136		O.D.: 3.0 I.D.: 0.9 t: 0.3

Note:

Symbol No. 100 ~ 107:	For cabinet
Symbol No. 108 ~ 110:	For camera lens block
Symbol No. 111 ~ 120, 124:	For mechanism
Symbol No. 121 ~ 123:	For AC adaptor/charger
Symbol No. 131 ~ 136:	For mechanism

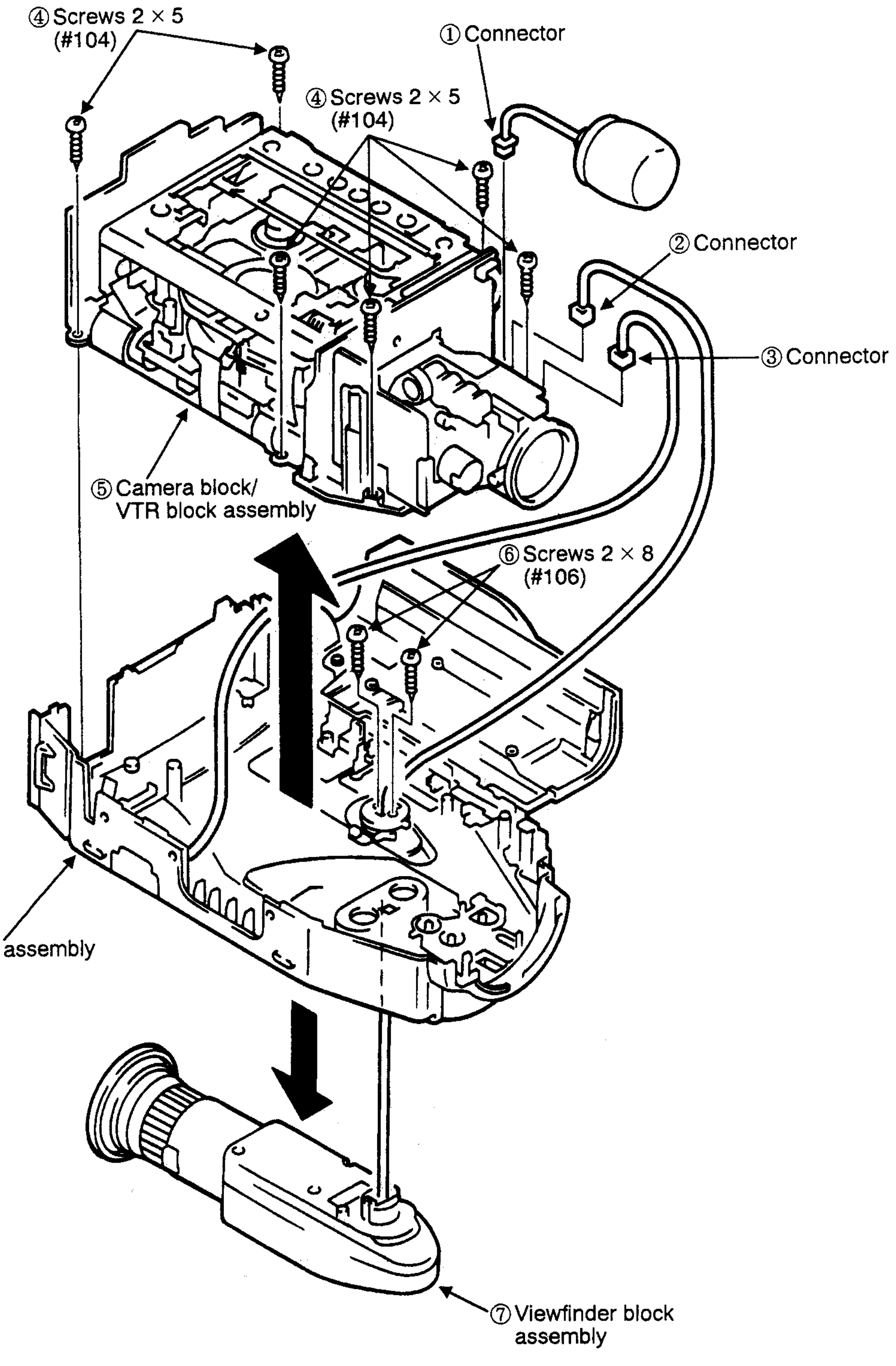
3-2. REMOVAL OF CASSETTE LID AND CABINET ASSEMBLY (RIGHT)

1. Slide the OPEN button ① in the direction of the arrow and fully open the cassette compartment cover ②.
2. Remove the two screws ③, then remove the cassette lid ④.
3. Remove the screw ⑤, then remove the lens cover assembly ⑥.
4. Remove the two screws ⑦, then remove the accessory shoe ⑧.
5. Remove the seven screws ⑨, ⑩ and ⑪, then while pressing on point A remove the cabinet assembly (right) ⑫ and stand ⑬.
6. Remove the IR sensor window ⑭ and the microphone ⑮ from the cabinet assembly (right).


③ Screws 2 × 6 (#105)
④ Cassette lid
⑫ Cabinet assembly (right)
⑩ Screws 2 × 5 (#104)
⑪ Screw 2 × 8 (#106)
⑩ Screw 2 × 5 (#104)
① OPEN button
⑬ Stand
⑨ Screw 1.7 × 4 (#101)
A
⑮ Microphone
② Cassette compartment cover
⑦ Screws 1.7 × 4 (#101)
⑧ Accessory shoe
⑭ IR sensor window
⑨ Screw 1.7 × 4 (#101)
⑩ Screws 2 × 5 (#104)
⑤ Screw 2 × 5 (#104)
⑥ Lens cover assembly

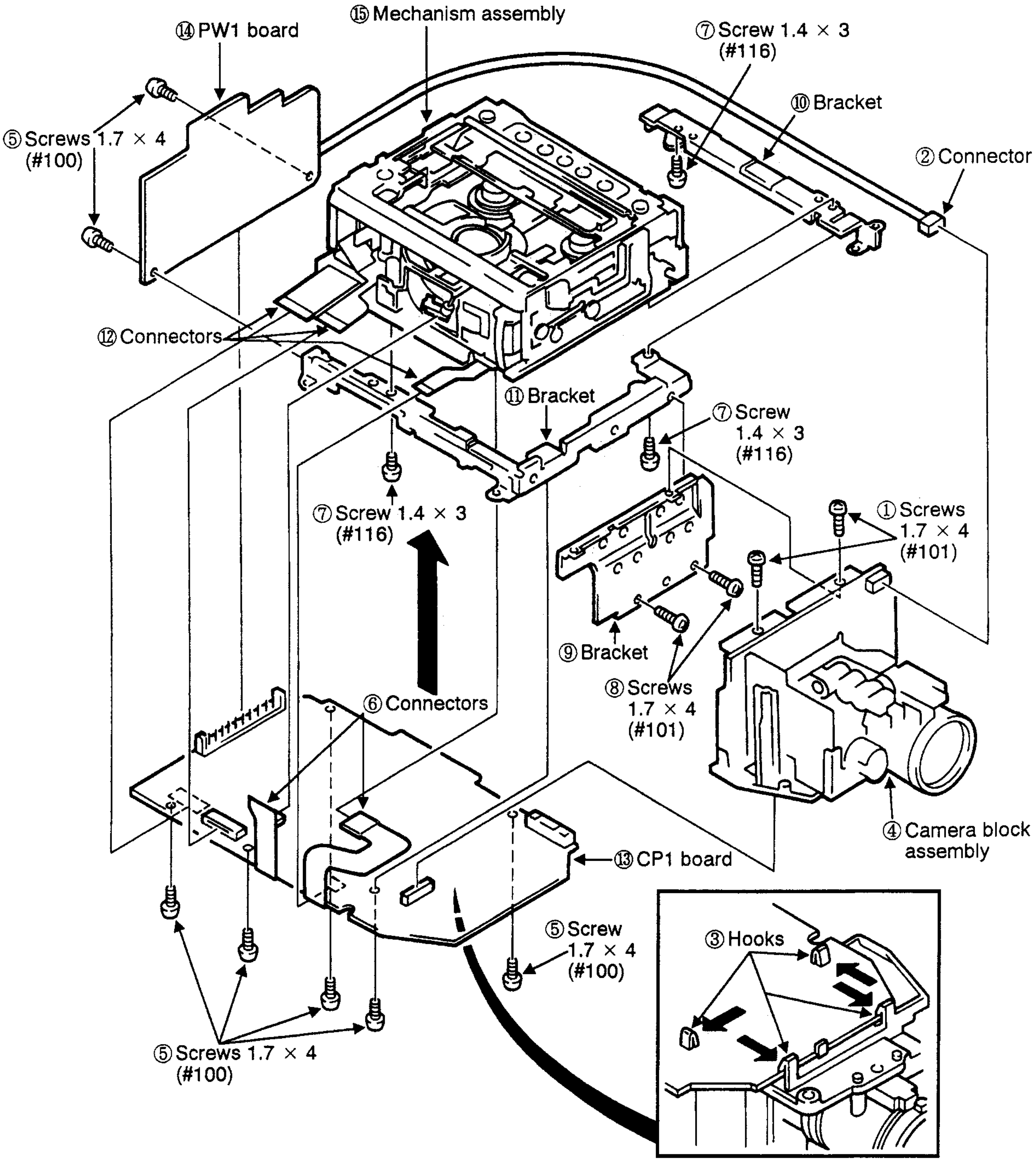
3-3. REMOVAL OF CAMERA BLOCK/VTR BLOCK ASSEMBLY AND CABINET ASSEMBLY (LEFT)

1. Remove the three connectors ① (from microphone), ② (from viewfinder) and ③ (from lithium battery).
2. Remove the six screws ④ , then remove the camera block/VTR block assembly ⑤.
3. Remove the two screws ⑥ , then remove the viewfinder block assembly ⑦.


④Screws 2 × 5
(#104)
①Connector
④Screws 2 × 5
(#104)
②Connector
③Connector
⑤Camera block/
VTR block assembly
⑥Screws 2 × 8
(#106)
⑧Cabinet assembly
(left)
⑦Viewfinder block
assembly

3-4. REMOVAL OF CAMERA BLOCK ASSEMBLY AND MECHANISM ASSEMBLY

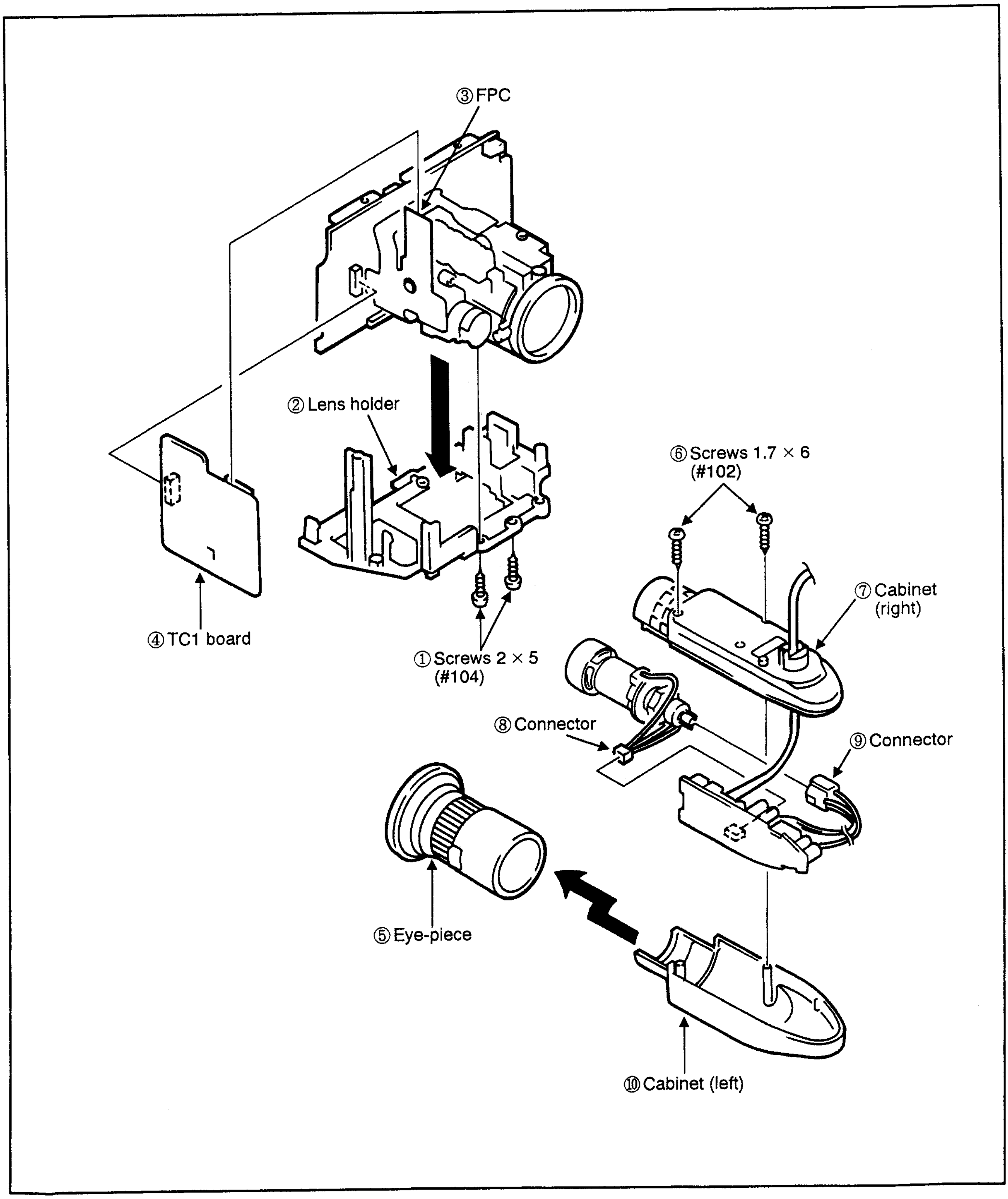
1. Remove the two screws ① and connector ②, then while pushing the hooks ③ in the direction of the arrows remove the camera block assembly ④.
2. Remove the seven screws ⑤. (Leave the CP1 and PW1 board connected for adjustments or continue with step 3. for disassembly.)
3. Remove the two connectors ⑥.
4. Remove the five screws ⑦ and ⑧, then remove the three brackets ⑨, ⑩ and ⑪.
5. Remove the three connectors ⑫, then remove the CP1 board ⑬, PW1 board ⑭ and the mechanism assembly ⑮.


⑭ PW1 board
⑮ Mechanism assembly
⑦ Screw 1.4 × 3 (#116)
⑩ Bracket
② Connector
⑤ Screws 1.7 × 4 (#100)
⑫ Connectors
⑪ Bracket
⑦ Screw 1.4 × 3 (#116)
⑦ Screw 1.4 × 3 (#116)
① Screws 1.7 × 4 (#101)
⑨ Bracket
⑧ Screws 1.7 × 4 (#101)
⑥ Connectors
④ Camera block assembly
⑬ CP1 board
⑤ Screw 1.7 × 4 (#100)
③ Hooks
⑤ Screws 1.7 × 4 (#100)

3-5. REMOVAL OF CA1 BOARD, TC1 BOARD AND VIEWFINDER

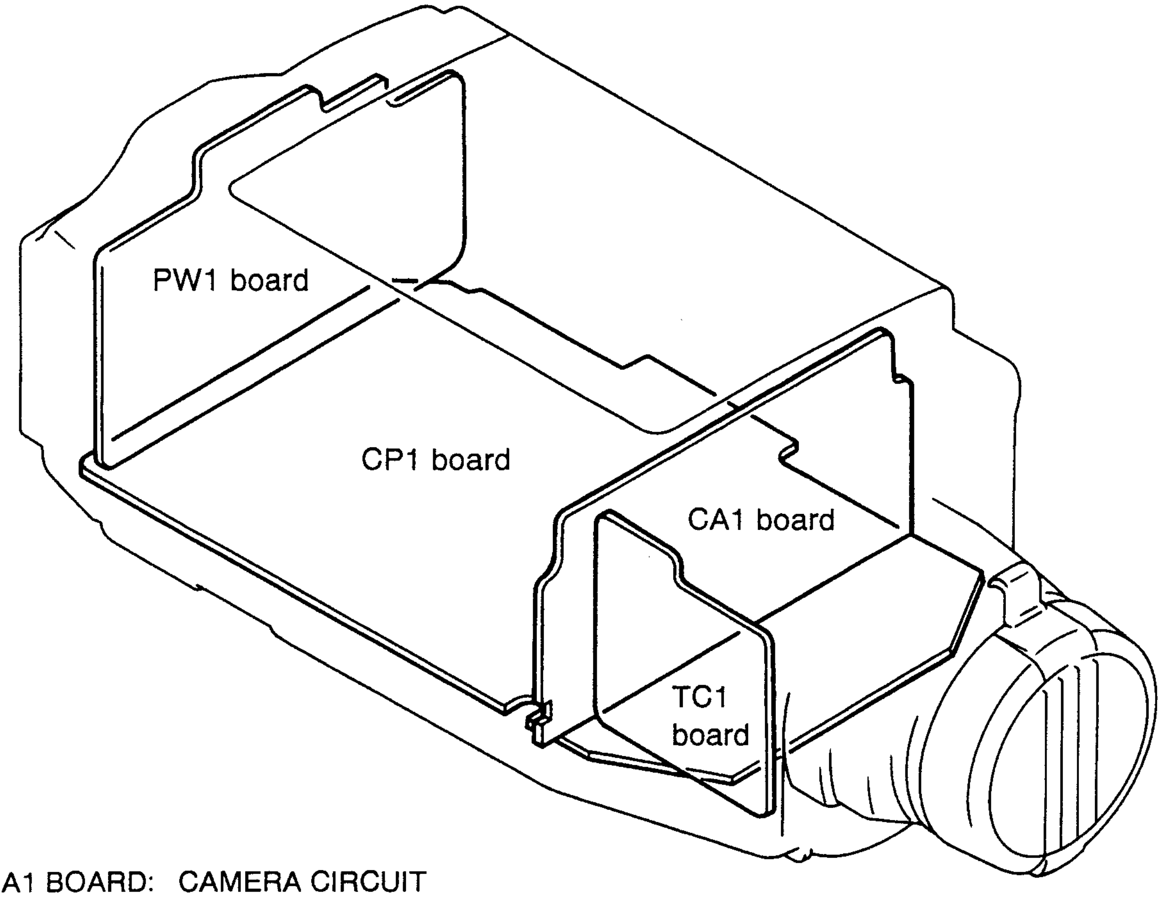
1. Remove the two screws ①, then remove the lens holder ②.
2. Remove the FPC ③, then remove the TC1 board ④.
3. Fully pull out the eye-piece ⑤, then push it back slightly. Turn it towards the left (in the direction of the arrow), then remove it.
4. Remove the two screws ⑥, then remove the cabinet (right) ⑦ of the viewfinder.
5. Remove the two connectors ⑧ and ⑨, then separate the viewfinder board section.

Note: For detailled information on how to remove the components, please refer to the **"Parts List"** manual.

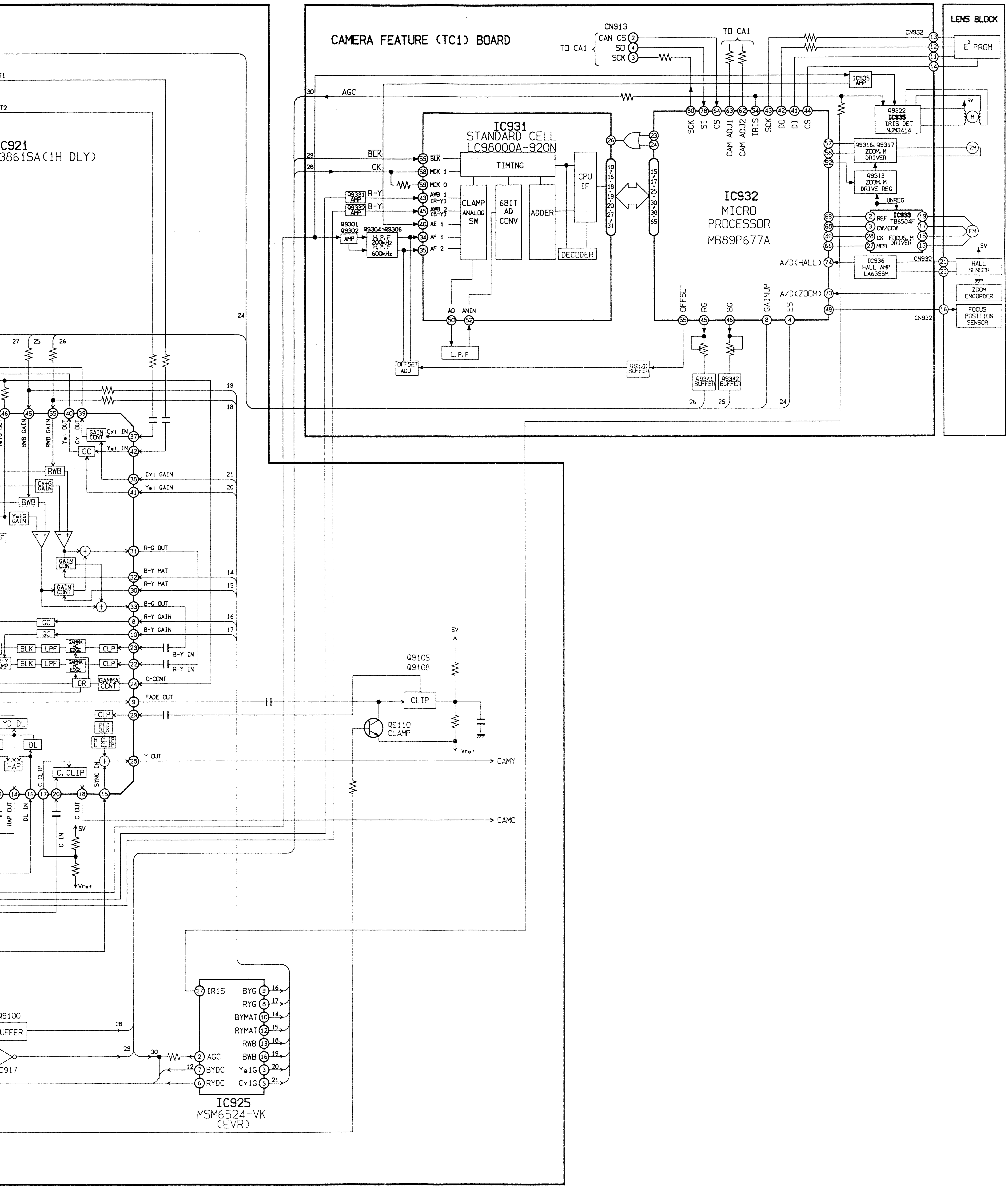

③FPC
②Lens holder
⑥Screws 1.7 × 6
(#102)
⑦Cabinet
(right)
④TC1 board
①Screws 2 × 5
(#104)
⑧Connector
⑨Connector
⑤Eye-piece
⑩Cabinet (left)

4. BLOCK DIAGRAM

4-1. BOARD LOCATION


PW1 board
CP1 board
CA1 board
TC1
board

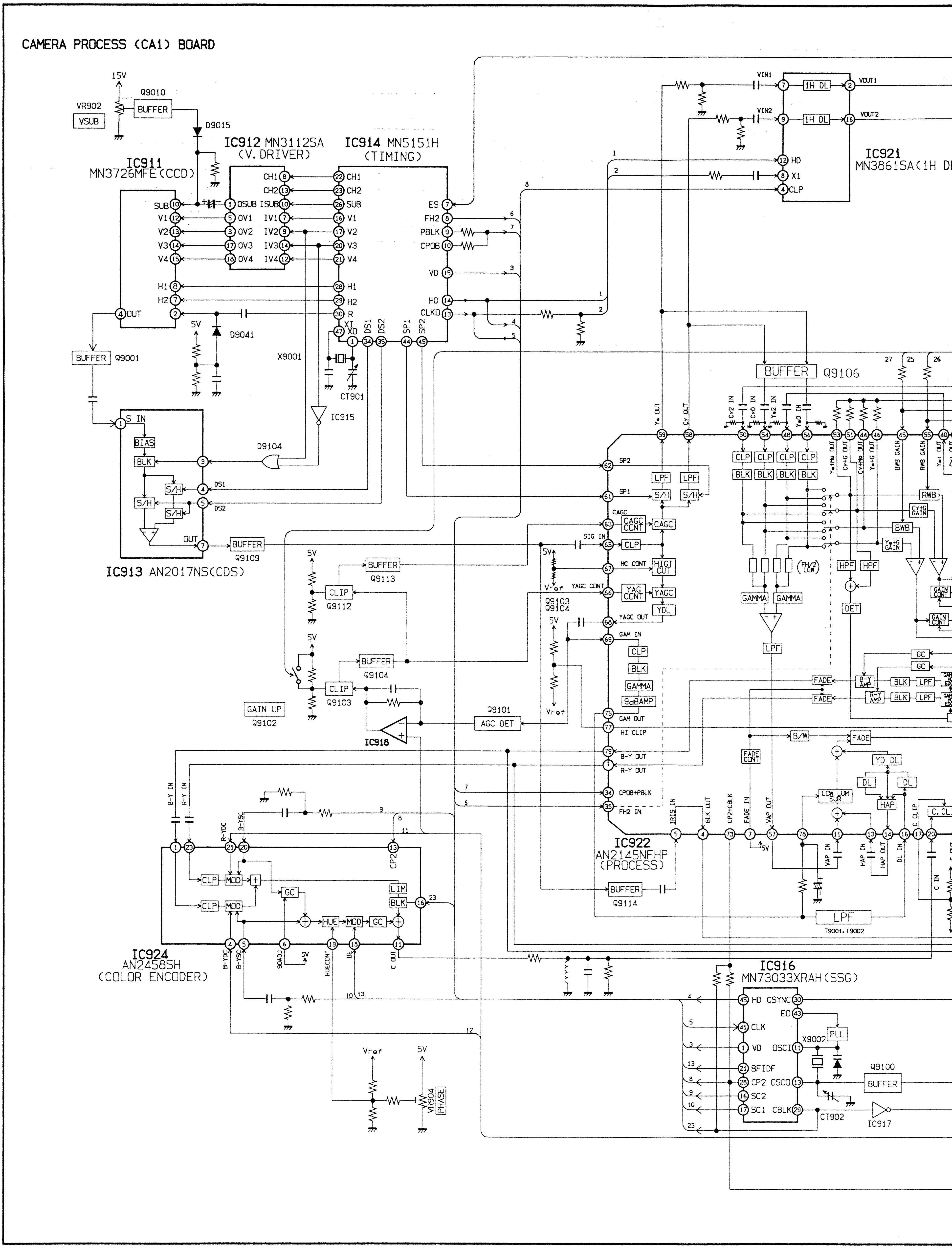
CA1 BOARD:	CAMERA CIRCUIT
TC1 BOARD:	CAMERA FEATURE CIRCUIT
CP1 BOARD:	SERVO/SYSTEM CONTROL CIRCUIT, VIDEO CIRCUIT & AUDIO CIRCUIT
PW1 BOARD:	POWER CIRCUIT
VF1 BOARD:	VIEWFINDER CIRCUIT (in the viewfinder assembly)


CAMERA FEATURE (TC1) BOARD
LENS BLOCK
CN913
TO CA1
CAN CS
SO
SCK
TO CA1
CN932
E² PROM
IC935 AMP
AGC
Q9322 IC935 IRIS DET NJM3414
5V
M
IC931
STANDARD CELL
LC98000A-920N
TIMING
CPU IF
CLAMP ANALOG SW
6BIT AD CONV
ADDER
DECODER
BLK
CK
MCK 1
MCK 0
AMB 1 (R-Y)
AMB 2 (B-Y)
AE 1
AF 1
AF 2
R-Y
B-Y
Q9331 AMP
Q9332 AMP
Q9301 Q9302 AMP
Q9304~Q9306
H.P.F 200kHz
H.P.F 600kHz
AD
ANIN
L.P.F
OFFSET ADJ
Q9320 BUFFER
IC932
MICRO
PROCESSOR
MB89P677A
SCK
SI
CS
CAM ADJ1
CAM ADJ2
IRIS
SCK
DO
DI
CS
Q9316, Q9317 ZOOM. M DRIVER
ZM
Q9313 ZOOM. M DRIVE REG
UNREG
IC933 TB6504F
REF
CW/CCW
CK
MOB
FOCUS.M DRIVER
FM
A/D(HALL)
IC936 HALL AMP LA6358M
HALL SENSOR
A/D(ZOOM)
ZOOM ENCODER
FOCUS POSITION SENSOR
OFFSET
RG
BG
GAINUP
ES
Q9341 BUFFER
Q9342 BUFFER
IC921
3861SA(1H DLY)
BWB GAIN
RWB GAIN
Ye1 OUT
Cy1 OUT
GAIN CONT
Cy1 IN
Ye1 IN
GC
RWB
Cy+G GAIN
BWB
Ye+G GAIN
Cy1 GAIN
Ye1 GAIN
R-G OUT
B-Y MAT
R-Y MAT
B-G OUT
R-Y GAIN
B-Y GAIN
GAIN CONT
BLK
LPF
GAMMA KC EDGE
CLP
B-Y IN
R-Y IN
CR
GAMMA CONT
CrCONT
FADE OUT
YD DL
PED BLK
H CLIP L CLIP
DL
HAP
C CLIP
C. CLIP
SYNC IN
Y OUT
CAMY
HAP OUT
DL IN
C IN
C OUT
CAMC
5V
Vref
Q9105
Q9108
CLIP
Q9110 CLAMP
Q9100
BUFFER
IC917
IRIS
AGC
BYDC
RYDC
BYG
RYG
BYMAT
RYMAT
RWB
BWB
Ye1G
Cy1G
IC925
MSM6524-VK
(EVR)

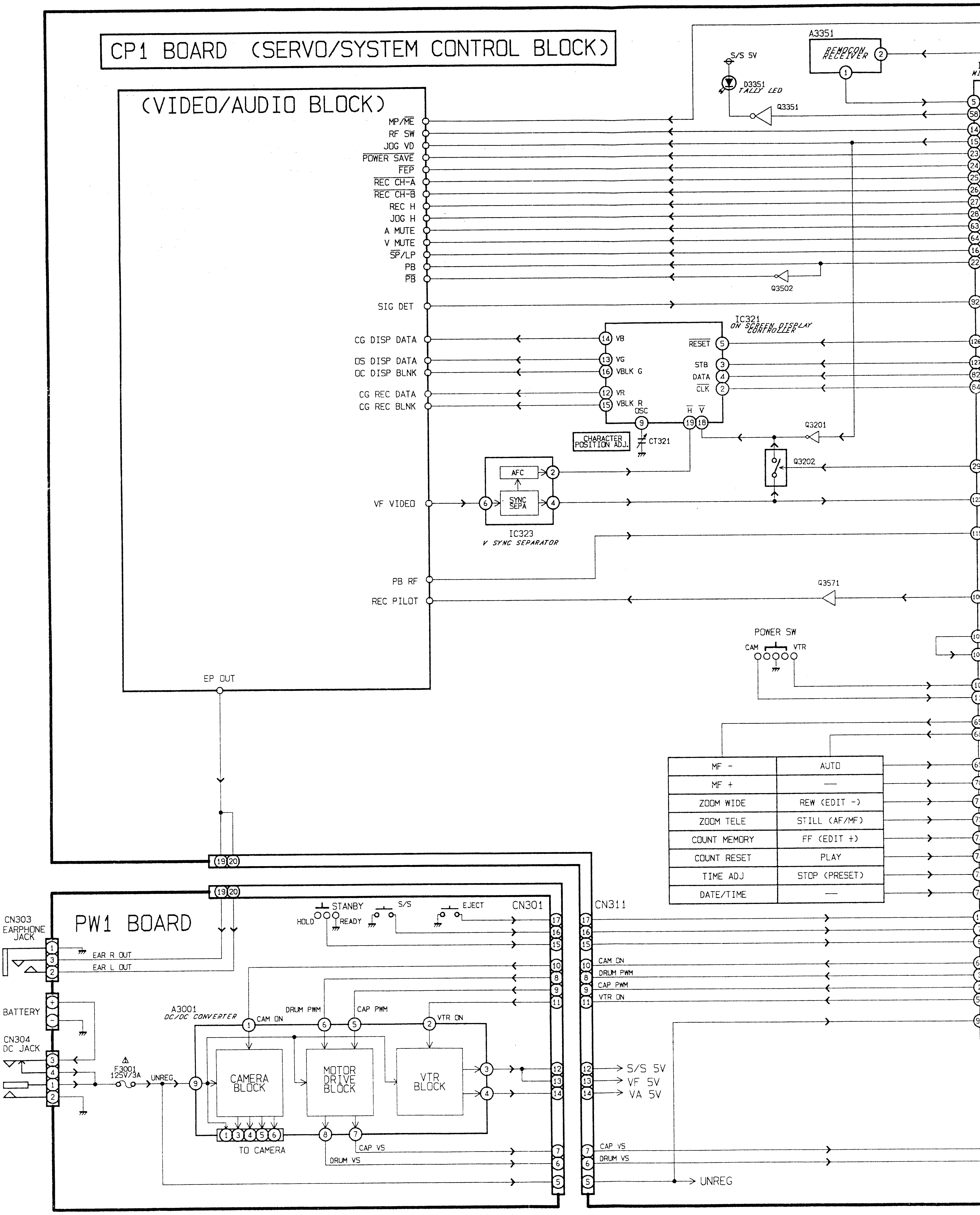
4-2. BLOCK DIAGRAM

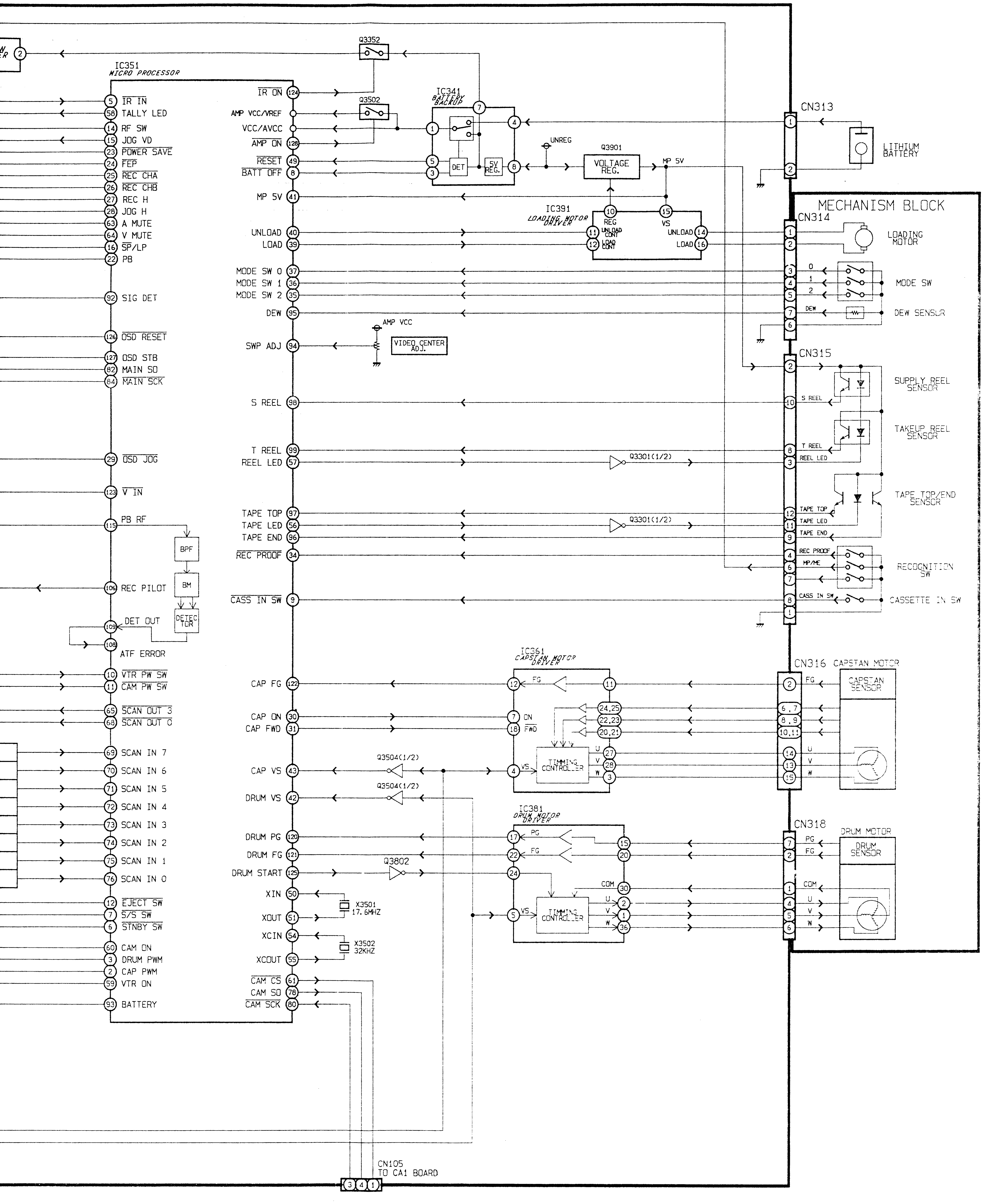
1. CAMERA BLOCK DIAGRAM

CAMERA BLOCK DIAGRAM

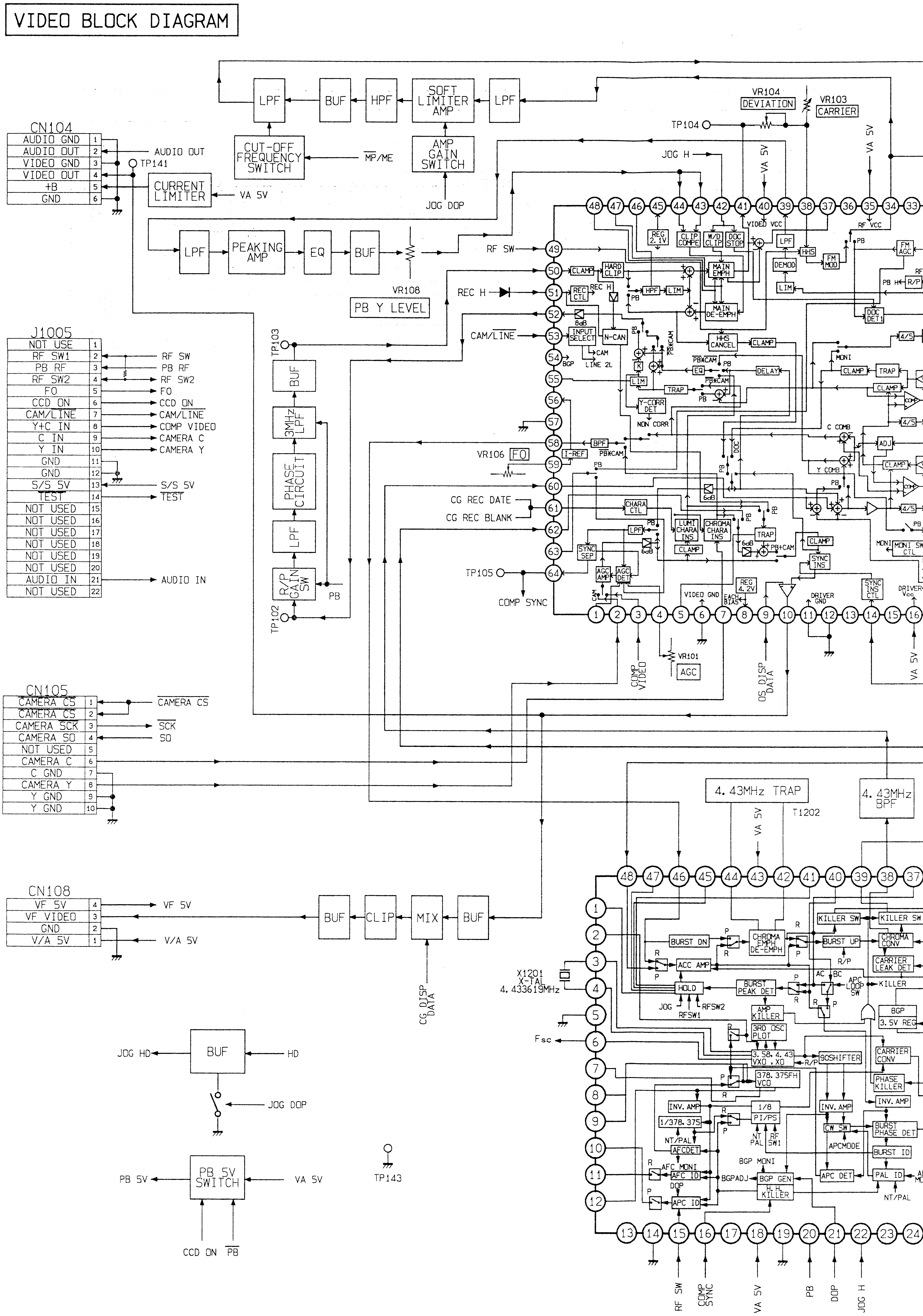

CAMERA PROCESS (CA1) BOARD
15V
VR902
VSUB
Q9010
BUFFER
D9015
IC911
MN3726MFE(CCD)
SUB
V1
V2
V3
V4
H1
H2
OUT
BUFFER
Q9001
5V
D9041
IC912 MN3112SA
(V. DRIVER)
CH1
CH2
OSUB ISUB
OV1 IV1
OV2 IV2
OV3 IV3
OV4 IV4
IC914 MN5151H
(TIMING)
CH1
CH2
SUB
V1
V2
V3
V4
H1
H2
R
XI
XO
DS1
DS2
SP1
SP2
ES
FH2
PBLK
CPOB
VD
HD
CLKO
X9001
CT901
IC915
D9104
S IN
BIAS
BLK
S/H
S/H
S/H
OUT
DS1
DS2
BUFFER
Q9109
IC913 AN2017NS(CDS)
5V
BUFFER
Q9113
CLIP
Q9112
5V
BUFFER
Q9104
CLIP
Q9103
GAIN UP
Q9102
IC918
Q9101
AGC DET
IC921
MN3861SA(1H DL
VIN1
VIN2
1H DL
1H DL
VOUT1
VOUT2
HD
X1
CLP
BUFFER
Q9106
Ye OUT
Cy OUT
Cy2 IN
Cy0 IN
Ye2 IN
Ye0 IN
SP2
SP1
CAGC
CAGC CONT
CAGC
SIG IN
CLP
HC CONT
HIGT CUT
Vref
YAGC CONT
YAG CONT
YAGC
Q9103
Q9104
YDL
YAGC OUT
GAM IN
CLP
BLK
GAMMA
9dBAMP
GAM OUT
HI CLIP
B-Y OUT
R-Y OUT
CPOB+PBLK
FH2 IN
LPF
S/H
CLP
BLK
GAMMA
LPF
(FH/2 LOW)
Ye+Mg OUT
Cy+G OUT
Cy+Mg OUT
Ye+G OUT
BWB GAIN
RWB GAIN
RWB
Cy+G GAIN
BWB
Ye+G GAIN
HPF
HPF
DET
GAIN CONT
GC
FADE
B-Y AMP
R-Y AMP
BLK
LPF
B/W
FADE
FADE CONT
YD DL
DL
LOW UM SUP
HAP
C.CL
IRIS IN
BLK OUT
CP2+CBLK
FADE IN
VAP OUT
VAP IN
HAP IN
HAP OUT
DL IN
C CLIP
C IN
IC922
AN2145NFHP
(PROCESS)
BUFFER
Q9114
LPF
T9001, T9002
B-Y IN
R-Y IN
R-YDC
R-YSC
CP2
CLP
MOD
GC
LIM
BLK
HUE
MOD
GC
IC924
AN2458SH
(COLOR ENCODER)
B-YDC
B-YSC
90ADJ
HUECONT
BE
C OUT
Vref
5V
VR904
PHASE
IC916
MN73033XRAH(SSG)
HD
CSYNC
EO
PLL
CLK
X9002
VD
OSCI
BFIDF
CP2
OSCO
SC2
SC1
CBLK
Q9100
BUFFER
CT902
IC917

2. SERVO/SYSTEM CONTROL BLOCK DIAGRAM

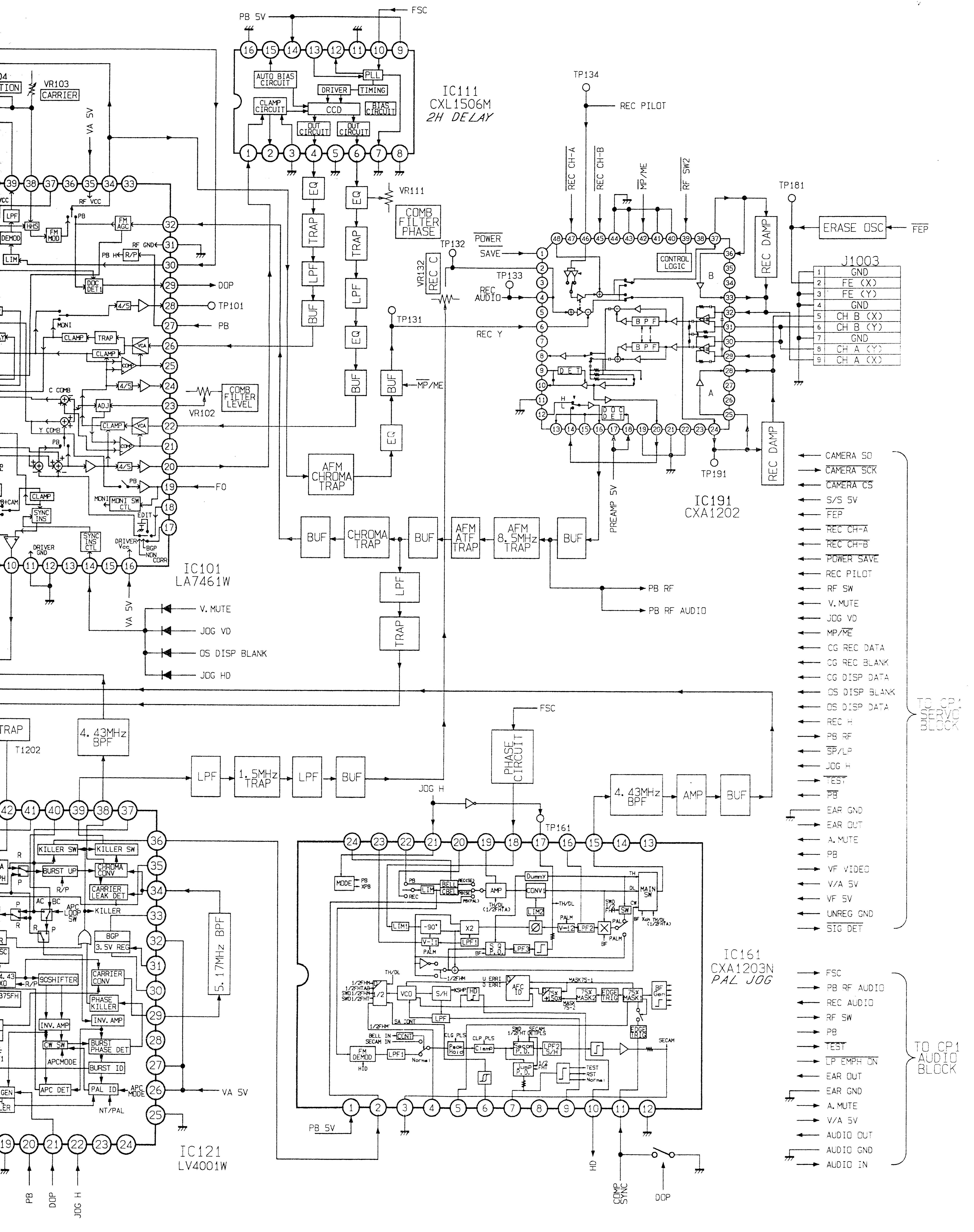

CP1 BOARD (SERVO/SYSTEM CONTROL BLOCK)
(VIDEO/AUDIO BLOCK)
MP/ME
RF SW
JOG VD
POWER SAVE
FEP
REC CH-A
REC CH-B
REC H
JOG H
A MUTE
V MUTE
SP/LP
PB
PB
SIG DET
CG DISP DATA
OS DISP DATA
OC DISP BLNK
CG REC DATA
CG REC BLNK
VF VIDEO
PB RF
REC PILOT
EP OUT
A3351
REMOCON RECEIVER
S/S 5V
D3351
TALLY LED
Q3351
Q3502
IC321
ON SCREEN DISPLAY CONTROLLER
VB
VG
VBLK G
VR
VBLK R
OSC
RESET
STB
DATA
CLK
H
V
CHARACTER POSITION ADJ.
CT321
Q3201
Q3202
AFC
SYNC SEPA
IC323
V SYNC SEPARATOR
Q3571
POWER SW
CAM
VTR
MF -
AUTO
MF +
ZOOM WIDE
REW (EDIT -)
ZOOM TELE
STILL (AF/MF)
COUNT MEMORY
FF (EDIT +)
COUNT RESET
PLAY
TIME ADJ
STOP (PRESET)
DATE/TIME
PW1 BOARD
CN303
EARPHONE JACK
EAR R OUT
EAR L OUT
BATTERY
CN304
DC JACK
F3001
125V/3A
UNREG
A3001
DC/DC CONVERTER
CAM ON
DRUM PWM
CAP PWM
VTR ON
CAMERA BLOCK
MOTOR DRIVE BLOCK
VTR BLOCK
TO CAMERA
CAP VS
DRUM VS
STANBY
HOLD
READY
S/S
EJECT
CN301
CN311
CAM ON
DRUM PWM
CAP PWM
VTR ON
S/S 5V
VF 5V
VA 5V
CAP VS
DRUM VS
UNREG


Q3352
IC351
MICRO PROCESSOR
IR ON 124
IR IN 5
TALLY LED 58
RF SW 14
JOG VD 15
POWER SAVE 23
FEP 24
REC CHA 25
REC CHB 26
REC H 27
JOG H 28
A MUTE 63
V MUTE 64
SP/LP 16
PB 22
SIG DET 92
OSD RESET 126
OSD STB 127
MAIN SO 82
MAIN SCK 84
OSD JOG 29
V IN 123
PB RF 115
BPF
BM
REC PILOT 106
DET OUT 109
DETECTOR
ATF ERROR 108
VTR PW SW 10
CAM PW SW 11
SCAN OUT 3 65
SCAN OUT 0 68
SCAN IN 7 69
SCAN IN 6 70
SCAN IN 5 71
SCAN IN 4 72
SCAN IN 3 73
SCAN IN 2 74
SCAN IN 1 75
SCAN IN 0 76
EJECT SW 12
S/S SW 7
STNBY SW 6
CAM ON 60
DRUM PWM 3
CAP PWM 2
VTR ON 59
BATTERY 93
AMP VCC/VREF
VCC/AVCC
AMP ON 128
RESET 49
BATT OFF 8
MP 5V 41
UNLOAD 40
LOAD 39
MODE SW 0 37
MODE SW 1 36
MODE SW 2 35
DEW 95
SWP ADJ 94
AMP VCC
VIDEO CENTER ADJ.
S REEL 98
T REEL 99
REEL LED 57
Q3301(1/2)
TAPE TOP 97
TAPE LED 56
TAPE END 96
Q3301(1/2)
REC PROOF 34
CASS IN SW 9
CAP FG 122
CAP ON 30
CAP FWD 31
CAP VS 43
Q3504(1/2)
DRUM VS 42
Q3504(1/2)
DRUM PG 120
DRUM FG 121
DRUM START 125
Q3802
XIN 50
XOUT 51
X3501 17.6MHZ
XCIN 54
XCOUT 55
X3502 32KHZ
CAM CS 61
CAM SO 78
CAM SCK 80
Q3502
IC341
BATTERY BACKUP
DET
5V REG.
UNREG
Q3901
VOLTAGE REG.
MP 5V
IC391
LOADING MOTOR DRIVER
REG
VS
UNLOAD CONT
LOAD CONT
UNLOAD
LOAD
CN313
LITHIUM BATTERY
MECHANISM BLOCK
CN314
LOADING MOTOR
MODE SW
DEW
DEW SENSOR
CN315
SUPPLY REEL SENSOR
S REEL
TAKEUP REEL SENSOR
T REEL
REEL LED
TAPE TOP/END SENSOR
TAPE TOP
TAPE LED
TAPE END
REC PROOF
MP/ME
RECOGNITION SW
CASS IN SW
CASSETTE IN SW
IC361
CAPSTAN MOTOR DRIVER
FG
ON
FWD
VS
TIMMING CONTROLLER
CN316 CAPSTAN MOTOR
CAPSTAN SENSOR
U
V
W
IC381
DRUM MOTOR DRIVER
PG
FG
COM
TIMMING CONTROLLER
CN318
DRUM MOTOR
DRUM SENSOR
CN105
TO CA1 BOARD

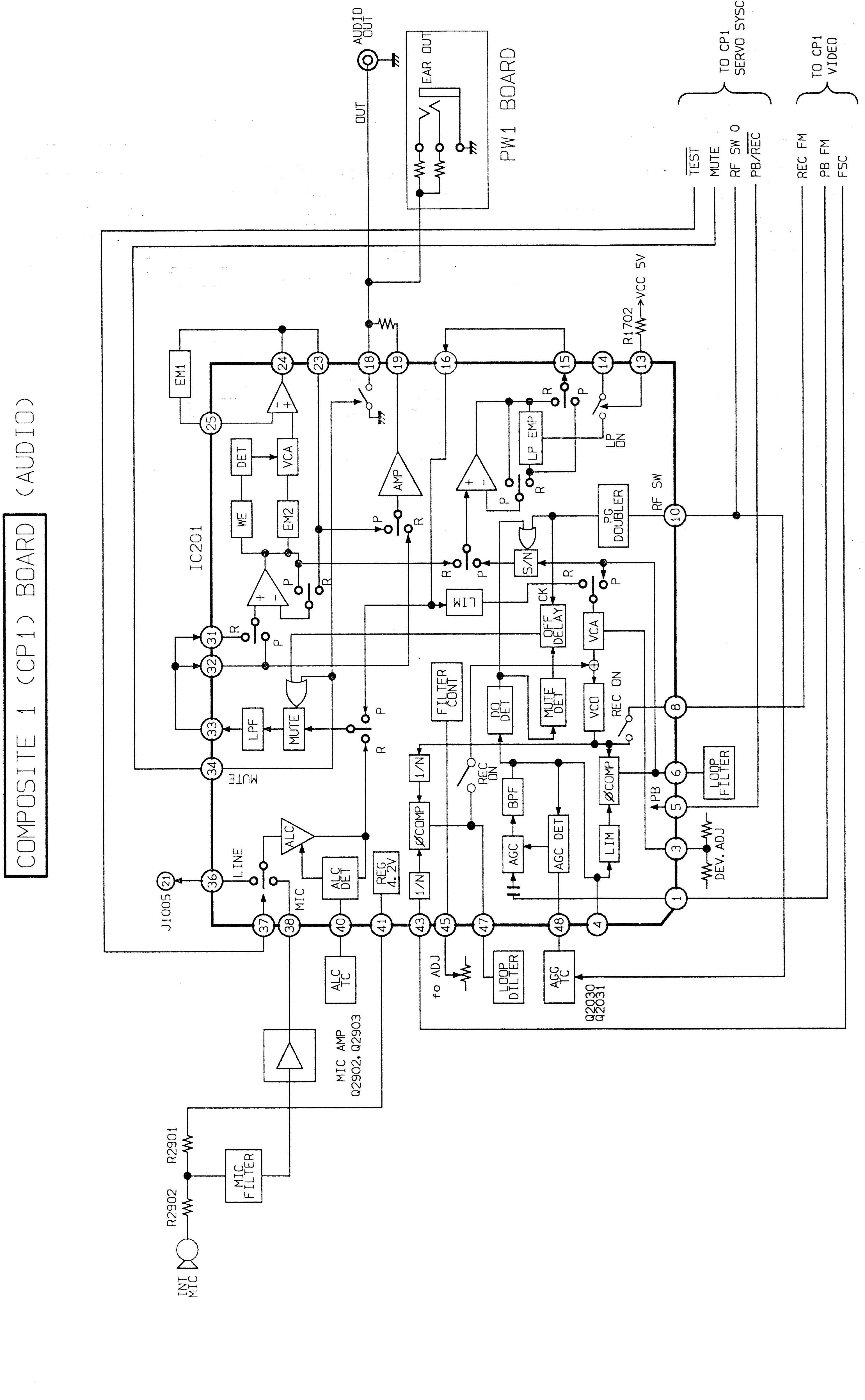
3. VIDEO BLOCK DIAGRAM



VIDEO BLOCK DIAGRAM
CN104
AUDIO GND 1
AUDIO OUT 2
VIDEO GND 3
VIDEO OUT 4
+B 5
GND 6
AUDIO OUT
TP141
CURRENT LIMITER
VA 5V
LPF
BUF
HPF
SOFT LIMITER AMP
CUT-OFF FREQUENCY SWITCH
MP/ME
AMP GAIN SWITCH
JOG DOP
PEAKING AMP
EQ
VR108
PB Y LEVEL
RF SW
REC H
CAM/LINE
VR106 FO
CG REC DATE
CG REC BLANK
TP105
COMP SYNC
VR104 DEVIATION
VR103 CARRIER
TP104
JOG H
VA 5V
VIDEO VCC
RF VCC
REG 2.1V
CLIP COMPE
W/D CLIP
DOC STOP
HARD CLIP
CLAMP
MAIN EMPH
MAIN DE-EMPH
REC CTL
HPF
LIM
DEMOD
FM MOD
FM AGC
HHS
DOC DET
INPUT SELECT
N-CAN
HHS CANCEL
EQ
DELAY
TRAP
Y-CORR DET
NON CORR
I-REF
BPF
CHARA CTL
LUMI CHARA INS
CHROMA CHARA INS
SYNC SEP
AGC AMP
AGC DET
REG 4.2V
SYNC INS
SYNC INS CTL
MONI SW CTL
C COMB
Y COMB
ADJ
VIDEO GND
EACH BIAS
DRIVER GND
DRIVER Vcc
VR101 AGC
COMP VIDEO
OS DISP DATA
TP103
BUF
3MHz LPF
PHASE CIRCUIT
R/P GAIN SW
PB
TP102
J1005
NOT USE 1
RF SW1 2
PB RF 3
RF SW2 4
FO 5
CCD ON 6
CAM/LINE 7
Y+C IN 8
C IN 9
Y IN 10
GND 11
GND 12
S/S 5V 13
TEST 14
NOT USED 15
NOT USED 16
NOT USED 17
NOT USED 18
NOT USED 19
NOT USED 20
AUDIO IN 21
NOT USED 22
RF SW
PB RF
RF SW2
FO
CCD ON
CAM/LINE
COMP VIDEO
CAMERA C
CAMERA Y
S/S 5V
TEST
AUDIO IN
CN105
CAMERA CS 1
CAMERA CS 2
CAMERA SCK 3
CAMERA SO 4
NOT USED 5
CAMERA C 6
C GND 7
CAMERA Y 8
Y GND 9
Y GND 10
CAMERA CS
SCK
SO
4.43MHz TRAP
T1202
4.43MHz BPF
CN108
VF 5V 4
VF VIDEO 3
GND 2
V/A 5V 1
VF 5V
V/A 5V
BUF
CLIP
MIX
CG DISP DATA
X1201 X-TAL 4.433619MHz
Fsc
KILLER SW
BURST DN
CHROMA EMPH DE-EMPH
BURST UP
CHROMA CONV
CARRIER LEAK DET
ACC AMP
HOLD
BURST PEAK DET
APC LOOP SW
KILLER
JOG
RFSW2
RFSW1
AMP KILLER
3RD OSC PLOT
BGP
3.5V REG
3.58.4.43 VXO.XO
R/P
90SHIFTER
CARRIER CONV
378.375FH VCO
PHASE KILLER
INV. AMP
1/378.375
1/8 PI/PS
NT PAL
RF SW1
CW SW
BURST PHASE DET
NT/PAL
AFCDET
APCMODE
BURST ID
AFC MONI
AFC ID
BGPADJ
BGP MONI
BGP GEN
APC DET
PAL ID
DOP
H.H. KILLER
APC ID
RF SW
COMP SYNC
VA 5V
PB
DOP
JOG H
JOG HD
BUF
HD
JOG DOP
PB 5V
PB 5V SWITCH
VA 5V
CCD ON
PB
TP143


IC111
CXL1506M
2H DELAY
AUTO BIAS CIRCUIT
CLAMP CIRCUIT
DRIVER
TIMING
PLL
CCD
BIAS CIRCUIT
OUT CIRCUIT
PB 5V
FSC
VR103 CARRIER
VA 5V
RF VCC
FM AGC
FM MOD
HHS
LPF
DEMOD
LIM
DOC DET1
RF GND
PB H
R/P
DOP
TP101
PB
MONI
CLAMP
TRAP
VCA
COMP
C COMB
ADJ
Y COMB
4/5
COMB FILTER LEVEL
VR102
F0
MONI SW CTL
SYNC INS
SYNC INS CTL
EDIT
DRIVER GND
DRIVER Vcc
BGP
NON CORR
IC101
LA7461W
V. MUTE
JOG VD
OS DISP BLANK
JOG HD
EQ
TRAP
LPF
BUF
VR111
COMB FILTER PHASE
TP131
TP132
TP133
VR132 REC C
MP/ME
AFM CHROMA TRAP
CHROMA TRAP
AFM ATF TRAP
AFM 8.5MHz TRAP
POWER SAVE
REC AUDIO
REC Y
TP134
REC PILOT
REC CH-A
REC CH-B
MP/ME
RF SW2
CONTROL LOGIC
BPF
DET
DOC DET
TP181
ERASE OSC
FEP
REC DAMP
TP191
PREAMP 5V
IC191
CXA1202
J1003
1 GND
2 FE (X)
3 FE (Y)
4 GND
5 CH B (X)
6 CH B (Y)
7 GND
8 CH A (Y)
9 CH A (X)
PB RF
PB RF AUDIO
CAMERA SO
CAMERA SCK
CAMERA CS
S/S 5V
FEP
REC CH-A
REC CH-B
POWER SAVE
REC PILOT
RF SW
V. MUTE
JOG VD
MP/ME
CG REC DATA
CG REC BLANK
CG DISP DATA
OS DISP BLANK
OS DISP DATA
REC H
PB RF
SP/LP
JOG H
TEST
PB
EAR GND
EAR OUT
A. MUTE
PB
VF VIDEO
V/A 5V
VF 5V
UNREG GND
SIG DET
TO CP1 SERVO BLOCK
FSC
PB RF AUDIO
REC AUDIO
RF SW
PB
TEST
LP EMPH ON
EAR OUT
EAR GND
A. MUTE
V/A 5V
AUDIO OUT
AUDIO GND
AUDIO IN
TO CP1 AUDIO BLOCK
TRAP
T1202
4.43MHz BPF
1.5MHz TRAP
PHASE CIRCUIT
JOG H
TP161
AMP
KILLER SW
BURST UP
CHROMA CONV
CARRIER LEAK DET
APC LOOP SW
KILLER
BGP
3.5V REG
4.43 XO
R/P
90SHIFTER
CARRIER CONV
PHASE KILLER
INV. AMP
CW SW
BURST PHASE DET
APCMODE
BURST ID
APC DET
PAL ID
APC MODE
NT/PAL
5.17MHz BPF
VA 5V
IC121
LV4001W
PB
DOP
JOG H
MODE
XPB
LIM
BELL
CBEL
CONV1
Dummy
MAIN SW
TH/DL
LIM2
LIM1
-90°
X2
V-II
LPF1
S/H P.D.
LPF3
V-1/2
LPF2
PALM
VCO
S/H
HD
AFC ID
MASK75-1
MASK2
EDGE TRIG
75X MASK1
BF Gen
FM DEMOD
CCNT
Peak Hold
Clamp
Secom P.D.
LPF2 S/H
Jump P.D.
TEST
RST
Normal
SECAM
IC161
CXA1203N
PAL JOG
PB 5V
HD
COMP SYNC
DOP

4. AUDIO BLOCK DIAGRAM



COMPOSITE 1 (CP1) BOARD (AUDIO)

IC201
PW1 BOARD
EAR OUT
AUDIO OUT
OUT
TO CP1 SERVO SYSCON
TO CP1 VIDEO
TEST
MUTE
RF SW 0
PB/REC
REC FM
PB FM
FSC
R1702
VCC 5V
EM1
EM2
DET
VCA
WE
AMP
LP EMP
LP ON
PG DOUBLER
RF SW
S/N
LIM
CK
OFF DELAY
FILTER CONT
DO DET
MUTE DET
VCO
REC ON
LPF
MUTE
1/N
ØCOMP
BPF
AGC
AGC DET
LIM
LOOP FILTER
PB
DEV. ADJ
ALC
ALC DET
REG 4.2V
LINE
MIC
J1005
ALC TC
fo ADJ
LOOP DILTER
AGC TC
Q2030
Q2031
MIC AMP
Q2902, Q2903
R2901
R2902
MIC FILTER
INT MIC
R
P
1
3
4
5
6
8
10
13
14
15
16
18
19
21
23
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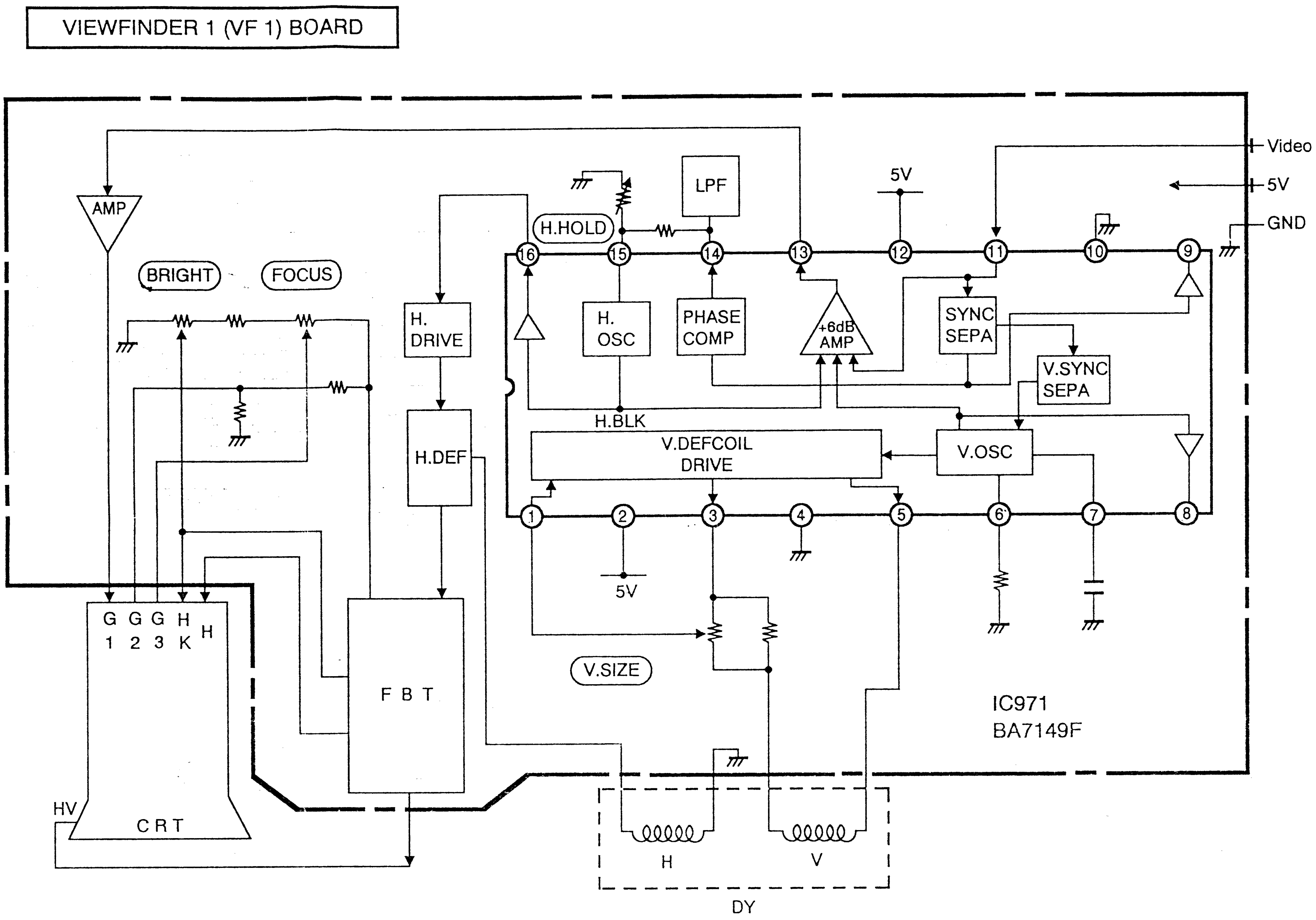
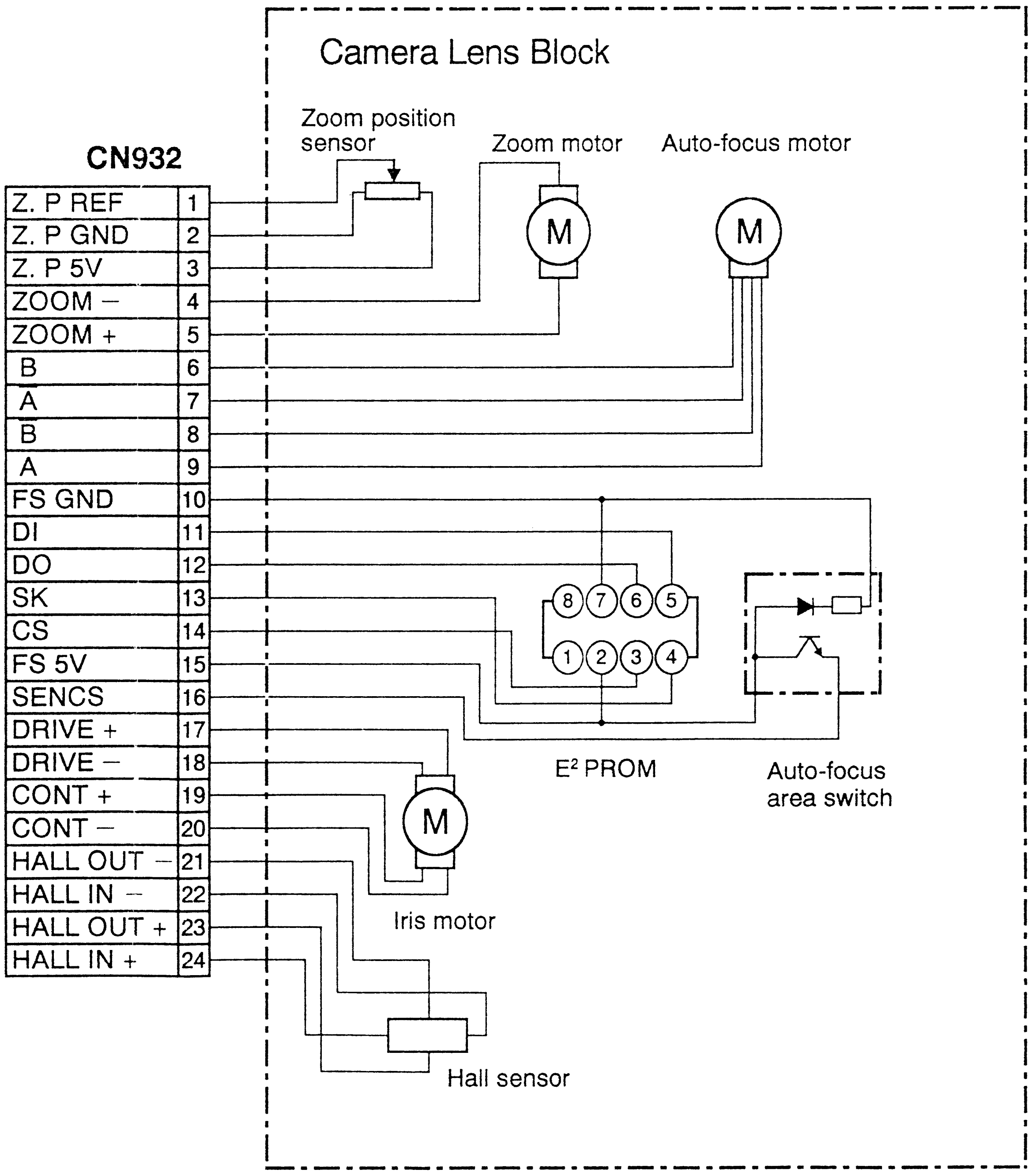
45
47
48

5. VIEWFINDER BLOCK DIAGRAM


VIEWFINDER 1 (VF 1) BOARD
Video
5V
GND
AMP
BRIGHT
FOCUS
H.HOLD
LPF
5V
H. DRIVE
H. OSC
PHASE COMP
+6dB AMP
SYNC SEPA
V.SYNC SEPA
H.BLK
H.DEF
V.DEFCOIL DRIVE
V.OSC
16
15
14
13
12
11
10
9
1
2
3
4
5
6
7
8
5V
G 1
G 2
G 3
H K
H
FBT
V.SIZE
IC971
BA7149F
HV
CRT
H
V
DY

6. CAMERA LENS BLOCK DIAGRAM


Camera Lens Block
CN932
Z. P REF 1
Z. P GND 2
Z. P 5V 3
ZOOM – 4
ZOOM + 5
B 6
A 7
B 8
A 9
FS GND 10
DI 11
DO 12
SK 13
CS 14
FS 5V 15
SENCS 16
DRIVE + 17
DRIVE – 18
CONT + 19
CONT – 20
HALL OUT – 21
HALL IN – 22
HALL OUT + 23
HALL IN + 24
Zoom position sensor
Zoom motor
Auto-focus motor
M
M
8 7 6 5
1 2 3 4
E² PROM
Auto-focus area switch
M
Iris motor
Hall sensor

5. ELECTRICAL ADJUSTMENT

1. CAMERA BLOCK ADJUSTMENT

1-1. TABLE FOR SERVICING TOOLS

Ref. No	Name	Part code
J-1	Color viewer 5,100K	VJ8-0007
J-2	Gray scale ($\gamma = 0.45$)	VJ8-0010
J-3	Color bar chart	VJ8-0009
J-4	Siemens star chart	
J-5	Two color temperature conversion filters (LBA8)	VJ8-0002
J-6	Socket pull-out tool	VJ8-0030
J-7	Camera block fixing tool	VJ8-0128
J-8	Pan head	VJ8-0101
J-9	Circuit board connecting tool	VJ8-0132
J-10	Extension cord (CA1 to CP1)	VJ8-0130
J-11	Extension cord (CA1 to CP1)	VJ8-0129
J-12	Extension cord (CA1 to PW1)	VJ8-0135
J-13	Adjustment controller	VJ8-0103
J-14	Adjustment (–) screwdriver	VJ8-0104

Note: J-1 Color viewer is 100 ~ 110 VAC only.

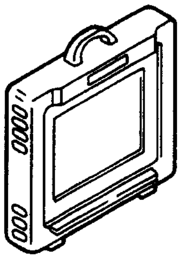
1-2. EQUIPMENTS

1. Vectorscope
2. Oscilloscope
3. Color monitor
4. Digital voltmeter
5. Frequency counter
6. DC regulated power supply

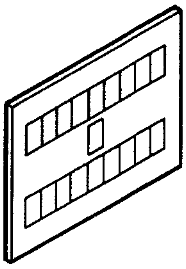
1-3. ADJUSTMENT ITEM AND ORDER

1. Oscillation frequency adjustment
2. Focus position adjustment
3. Zooming curve adjustment
4. CCD driving voltage adjustment
5. PLL voltage provisional adjustment
6. Auto iris level adjustment
7. Chroma delay adjustment
8. Y level adjustment
9. Carrier balance adjustment
10. Phase adjustment
11. Hue and chroma level adjustment
12. 5,100K AWB adjustment
13. 2,800K AWB adjustment
14. PLL voltage adjustment

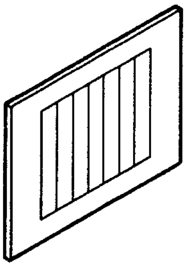
J-1



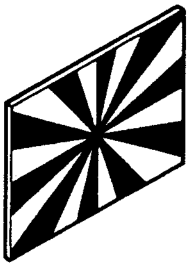
J-2



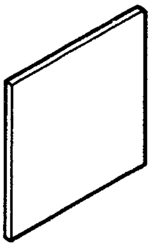
J-3



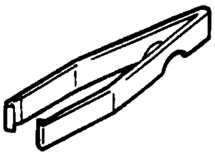
J-4



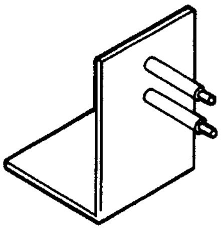
J-5



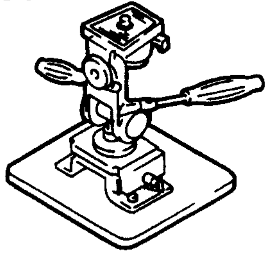
J-6



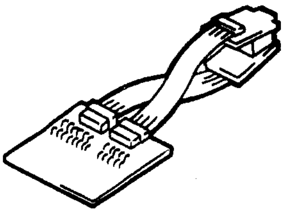
J-7



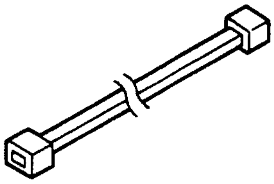
J-8



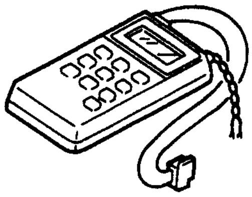
J-9



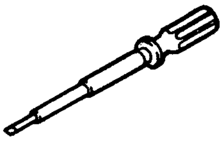
J-10 ~ J-12



J-13



J-14



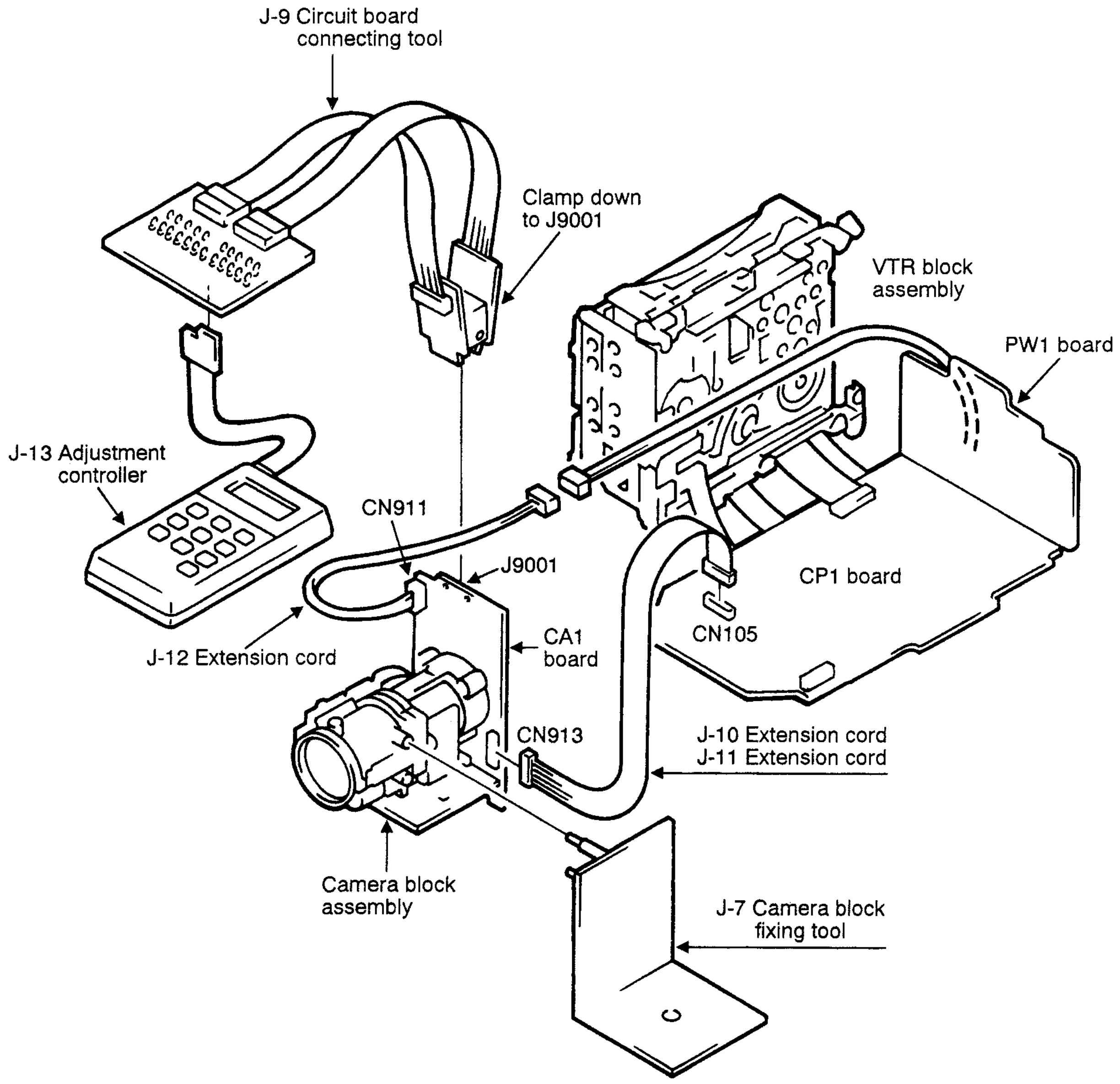
1-4. SETUP AND CONNECTION

Refer to "**3. DISASSEMBLY**" to remove the cabinet and each board.

1. Set the camera block assembly to the tool J-7 as illustrated.
2. Set up the camera block assembly and VTR block assembly as illustrated.
3. Connect as follows. Note that the required preparation differs a little depending on the adjustment item.
   CA1 to CP1 (J10/J11)
   CA1 to PW1 (J-12)
   CA1 to Adjustment Controller (Refer to 1-7)

NOTES:

- Open or ground the test pin J9001 ① [CAM ADJ.3], J9001 ⑧ [CAM ADJ.1] and J9001 ⑨ [CAM ADJ.2] in accordance with the adjustment specification.
- Use the test pin J9001 ⑬ [ID] and J9001 ⑮ [GND] as the trigger for oscilloscope and GND.
- J-10 is similar to J-11 with pins ①, ②, ③, ④ cut-off.
- The circuit board connecting tool J-9 is also used in "**2. VTR BLOCK ADJUSTMENT**".

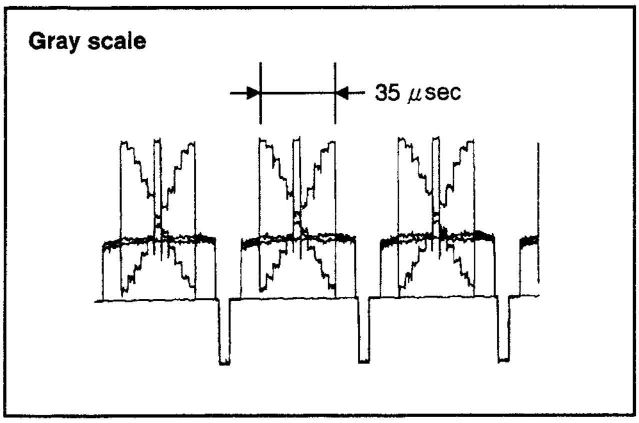

J-9 Circuit board connecting tool
Clamp down to J9001
VTR block assembly
PW1 board
J-13 Adjustment controller
CN911
J9001
CP1 board
CA1 board
CN105
J-12 Extension cord
CN913
J-10 Extension cord
J-11 Extension cord
Camera block assembly
J-7 Camera block fixing tool

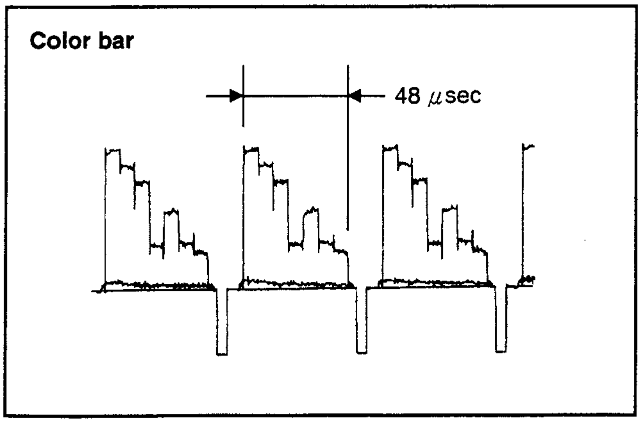
1-5. NOTES

1. Perform the adjustment after aging for ten minutes or more.
2. As a rule, perform the adjustment in the order as shown in the section 1-8.
3. Set the line select switch of the vectorscope to +V.

1-6. STANDARD SETTING

1. Use the 5,100K viewer for a subject.
2. Set to about 70 cm the distance from subject and adjust with the power zoom buttons so that each picture frame size becomes as shown below when performing the adjustment with the gray scale and the color bar.
3. Operate the power zoom buttons so that the viewer without chart is monitored on the whole screen when performing the adjustment with the all white pattern.
4. Connect the equipment.


Gray scale


Color bar

1-7. ADJUSTMENT CONTROLLER

The EVR IC incorporates the non-volatile memory and the 8 bits D/A converter of 12 channels.
The adjustment controller performs the following communications with EVR IC.
They are channel designation, up/down of data (8 bits, 0 to 255), reading out of the data written in the memory and writing of the data to the memory, etc.
These operations can be performed by the key operations of the adjustment controller.
Use the adjustment controller as described below.

① **Connecting method**
Turn off the power supply of the AC adaptor, then connect test pin array J9001 of CA1 board to the adjustment controller using the J-9 circuit board connecting tool. (Refer to 1-4.)

② **Power supply**
Use the DC regulated power supply for the power supply of the adjustment controller and connect 6 to 8 VDC to the pin jack.

- Turn on/off the power supply of camera and the power supply of the adjustment controller at the same time.

③ **Test pin array**
Due to its small size, connect test pin array J9001 of CA1 board to the adjustment controller using the J-9 circuit board connecting tool. The J-9 relay board is, as the J9001, also located in the test pin array.

④ **Relation between the adjusting data value and EVR IC output voltage**
When setting the adjusting data value as N, and EVR IC output voltage as V (N), the following formula is obtained.
$V(N) \fallingdotseq 0.5 + 3N/255$
(Example): $V(0) \fallingdotseq 0.5$ volt, $V(128) \fallingdotseq 2.0$ volt,
$V(255) \fallingdotseq 3.5$ volt

⑤ **Note on using the adjustment controller**
The correct adjusting data may be deleted by mis-operation of the adjustment controller. The following three items are recommended to prevent this.

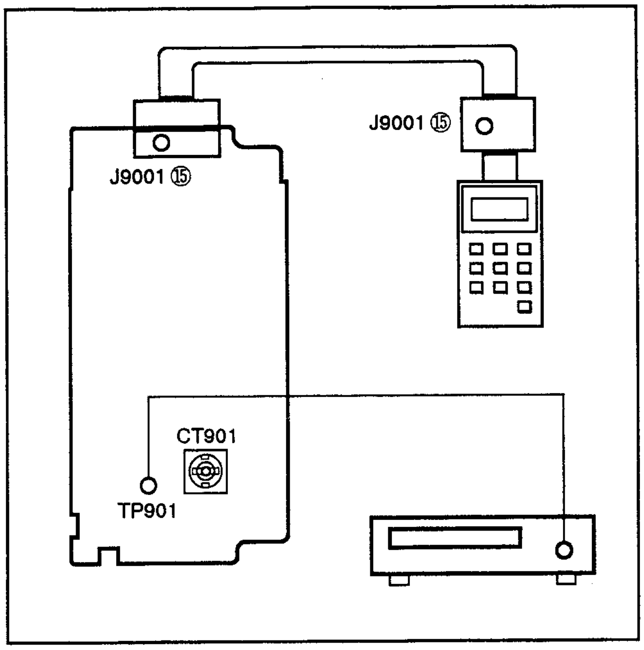
1. Before performing the adjustment, note after reading out the adjusting data (0 to 255) of each channel.
2. Note the new adjusting data every time an adjustment of item completes.
3. Send each data to the D/A converter of each channel by pressing AID+SEND and AID+WRT after setting the data of all adjusting items and store each into the memory to finish the adjustment.

(Refer to VJ8-0103 Adjustment controller Instruction Manual.)

1-8. ADJUSTING SPECIFICATION

1. Oscillation Frequency Adjustment

[Connection]



[Adjustment]

Measuring Point	Measuring Equipment	Condition
TP901 J9001 ⑮ [GND]	Frequency counter	CAMERA EE
	Subject	

ADJ. Location	ADJ. Value
CT901	9,656.25 ± 0.05 kHz

Preparation:

- Set the CAMERA EE mode by setting the POWER switch to "CAMERA" and the Stand-by switch to "READY".
- Connect the color monitor to the video output terminal. (Condition for subsequent adjustments.)

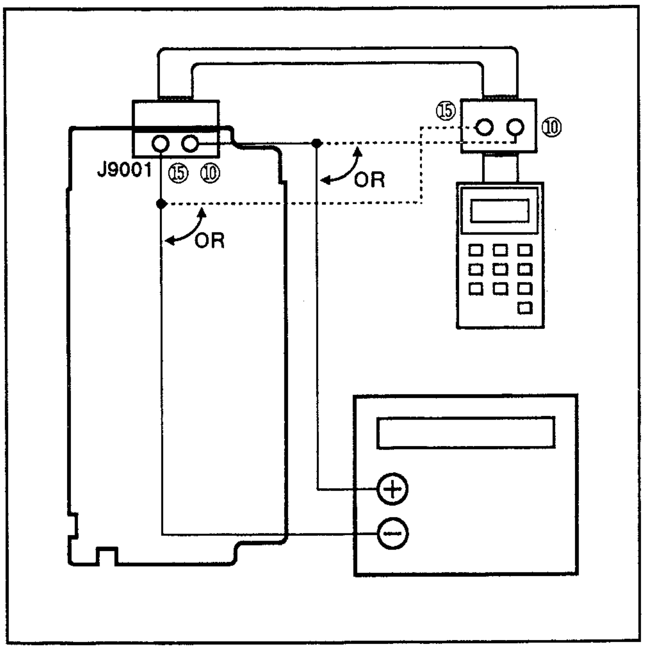
Adjusting method:

1. Adjust with CT901 so that the oscillation frequency is 9,656.25 ± 0.05 kHz.

- For adjustments 1. to 3. connect using the J-10 Extension cord.

2. Focus Position Adjustment

[Connection]



[Adjustment]

Measuring Point	Measuring Equipment	Condition
Test pin array J9001 ⑩ [ADJ. END] J9001 ⑮ [GND]	Digital voltmeter	Power OFF ➡ ON
	Subject	
	Siemens star (from lens surface: 70 ± 3.5 cm, illuminance: 100 to 200 lux)	

ADJ. Location	ADJ. Value

Preparation:

- Short pin ①, pin ⑨ and pin ⑮ of J9001.

Adjusting method:

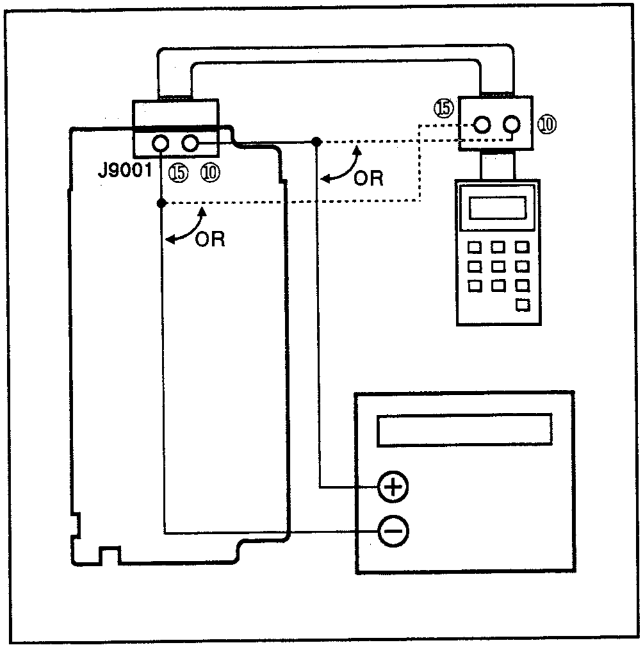
1. Turn on the power by changing the Stand-by switch from "HOLD" to "READY".
2. The DC voltage of J9001 ⑩ will change from High (4 ~ 5 V) to Low (below 1 V), and the adjustment will be completed. (About 15 seconds)

NOTES:

- After turning the power on, it takes up to 10 seconds to adjust the focus on the subject.
- If the subject is not focused after 10 seconds of turning on the power, turn the power off and then on again.

3. Zooming Curve Adjustment

[Connection]



[Adjustment]

<table>
<tr><th>Measuring Point</th><th>Measuring Equipment</th><th>Condition</th></tr>
<tr><td rowspan="3">Test pin array
J9001 ⑩
[ADJ. END]
J9001 ⑮ [GND]</td><td>Digital voltmeter</td><td>Power
OFF → ON</td></tr>
<tr><th colspan="2">Subject</th></tr>
<tr><td colspan="2">Siemens star (from lens surface: 120 ± 1.2 cm, illuminance: 50 to 120 lux)</td></tr>
<tr><th>ADJ. Location</th><th colspan="2">ADJ. Value</th></tr>
<tr><td></td><td colspan="2"></td></tr>
</table>

Preparation:

- Short pin ① and pin ⑧, then short pin ⑨ and pin ⑮ of J9001.

Adjusting method:

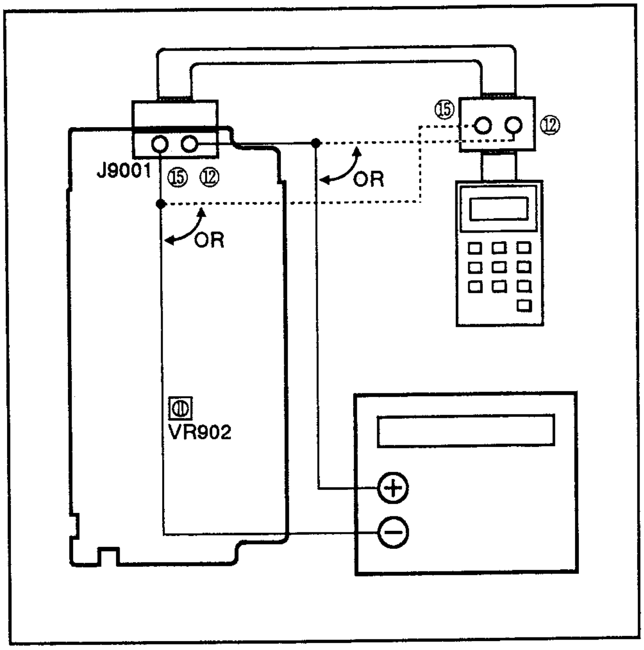
1. Turn on the power by changing the Stand-by switch from "HOLD" to "READY".
2. The DC voltage of J9001 ⑩ will change from High (4 ~ 5 V) to Low (below 1 V), and the adjustment will be completed. (About 15 seconds)

NOTES:

- After turning the power on it takes up to 10 seconds to adjust the focus. The adjustment is completed after the screen gets black, comes on and gets black again.
- After the focus position adjustment, adjust the zooming curve. In case vibrations that may cause the subject to come out of focus are detected during the adjustment, the focus will be readjusted.

4. CCD Driving Voltage Adjustment

[Connection]



[Adjustment]

<table>
<tr><th>Measuring Point</th><th>Measuring Equipment</th><th>Condition</th></tr>
<tr><td rowspan="3">Test pin array
J9001 ⑫
[VSUB]
J9001 ⑮ [GND]</td><td>Digital voltmeter</td><td>CAMERA EE</td></tr>
<tr><th colspan="2">Subject</th></tr>
<tr><td colspan="2">No designation</td></tr>
<tr><th>ADJ. Location</th><th colspan="2">ADJ. Value</th></tr>
<tr><td>VR902 [VSUB]</td><td colspan="2">Abbreviation voltage value ± 0.1 V</td></tr>
</table>

Preparation:

- For this, and subsequent adjustments, connect with the J-11 Extension cord.

Adjusting method:

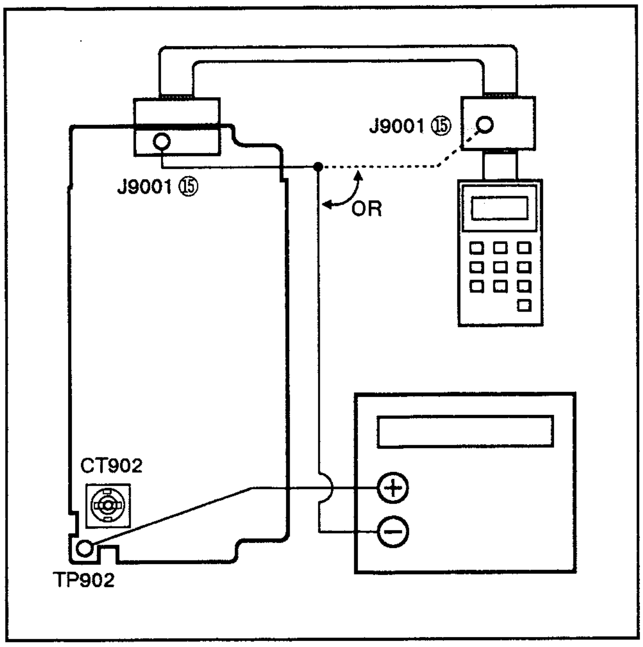
1. Read the abbreviation of three digits displayed on the rear side of the CCD. The first digit displays the [VSUB] voltage and the second digit displays the decimal value. Convert these to the voltage with the table below.
   For example, [F5K] displays [VSUB] = 12.5 V

[VSUB] abbreviation	5	6	7	8	9	A	E	F	G	H
Voltage [V]	5	6	7	8	9	10	11	12	13	14

2. Adjust with VR902 so that the voltage at [VSUB] becomes the indicated voltage value ± 0.1 V.

5. PLL Voltage Provisional Adjustment

[Connection]



[Adjustment]

Measuring Point	Measuring Equipment	Condition
TP902 [PLL] J9001 ⑮ [GND]	Digital voltmeter	CAMERA EE
	Subject	
	No designation	

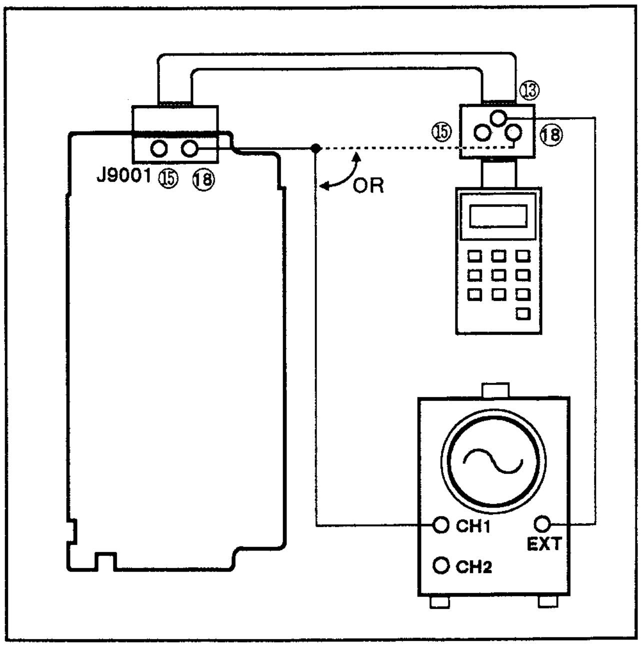
ADJ. Location	ADJ. Value
CT902	2.0 ~ 3.0 VDC

Adjusting method:

1. Adjust with CT902 to 2.0 ~ 3.0 VDC.

6. Auto Iris Level Adjustment

[Connection]



[Adjustment]

Measuring Point	Measuring Equipment	Condition
Test pin array J9001⑱ [IRIS DET] J9001 ⑮ [GND]	Oscilloscope	CAMERA EE
	Subject	
	Gray scale (standard picture frame)	

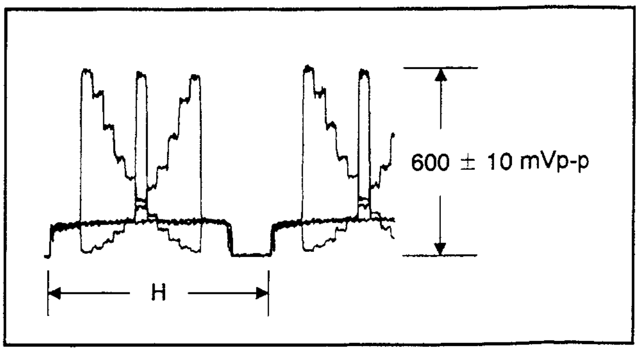
ADJ. Location	ADJ. Value
EVR CH1	600 ± 10 mVp-p

Preparation:

- Set the unit to manual focus.
- Short pin ⑧ and pin ⑮ of J9001.

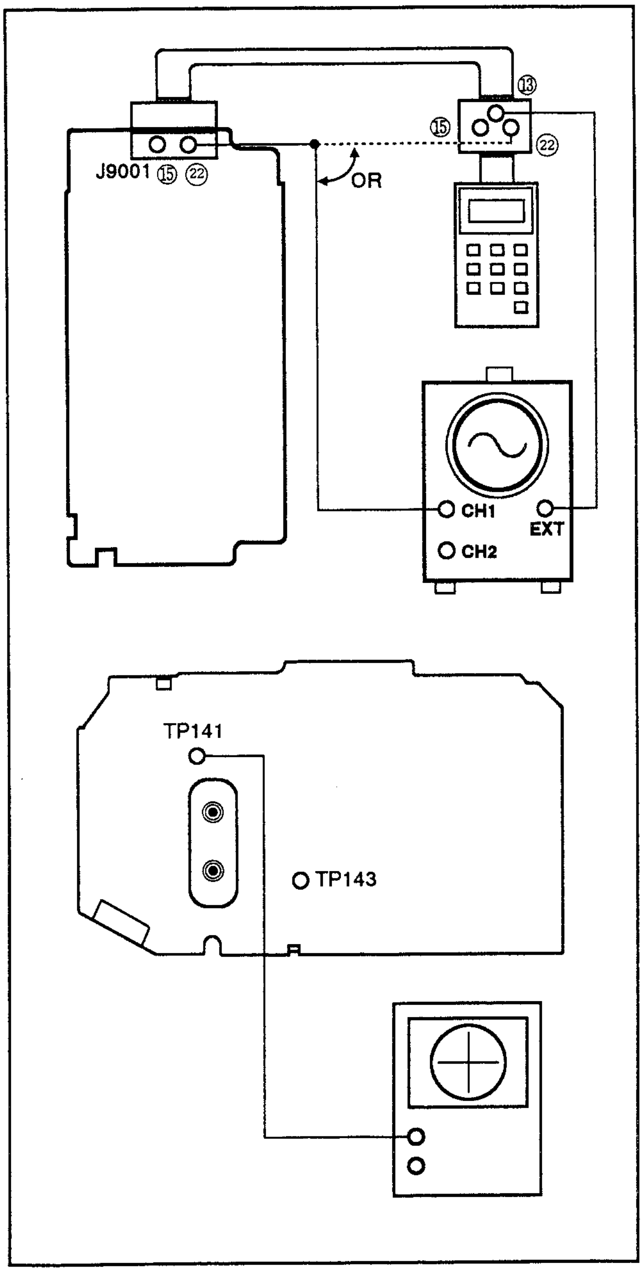
Adjusting method:

1. Operate the CH-UP key or the CH-DOWN key to designated EVR CH1.
2. Operate the DATA-CENT key, DATA-UP key and DATA-DOWN key to set the [IRIS DET.] waveform level to 600 ± 10 mVp-p.
3. Press the WRT key to store the adjusting data.



7. Chroma Delay Adjustment

[Connection]



[Adjustment]

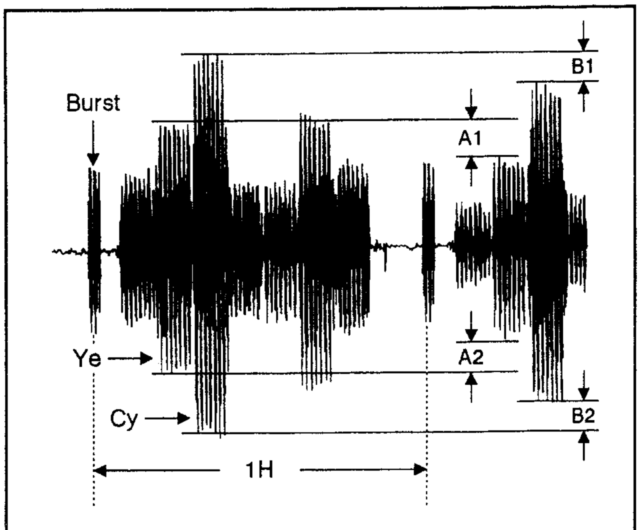
<table>
<tr><th>Measuring Point</th><th>Measuring Equipment</th><th>Condition</th></tr>
<tr><td rowspan="3">J9001 ㉒
[CAMERA C]
J9001 ⑮ [GND]
TP141 [CP1]
(video output)
TP143 (GND)</td><td>Oscilloscope
Vectorscope</td><td>CAMERA EE</td></tr>
<tr><th colspan="2">Subject</th></tr>
<tr><td colspan="2">Color bar (standard picture frame)</td></tr>
<tr><th>ADJ. Location</th><th colspan="2">ADJ. Value</th></tr>
<tr><td>EVR CH3, CH4</td><td colspan="2"></td></tr>
</table>

Preparation:

- Set the unit to manual focus.
- Short pin ⑧ and pin ⑮ of J9001.

Adjusting method:

1. Temporarily set the EVR channels as described below.
   [Value of adjusting data]
   CH2: 165, CH5: 110, CH6: 110, CH7: 70, CH8: 90, CH11: 55, CH12: 175
   Press the WRT key once while pressing the AID key to store the provisional adjusting data.
2. Operate the CH-UP or the CH-DOWN key to designate EVR CH3.
   Operate the DATA-CENT key, DATA-UP key and DATA-DOWN key to adjust the chroma waveform in each 1H so that the Ye (yellow) level A1 = A2 = 0.
3. Operate the CH-UP or the CH-DOWN key to designate EVR CH4.
   Operate the DATA-CENT key, DATA-UP key and DATA-DOWN key to adjust the chroma waveform in each 1H so that the Cy (cyan) level B1 = B2 = 0.
4. Repeat steps 2. and 3. until A1 = A2 = 0 and B1 = B2 = 0.

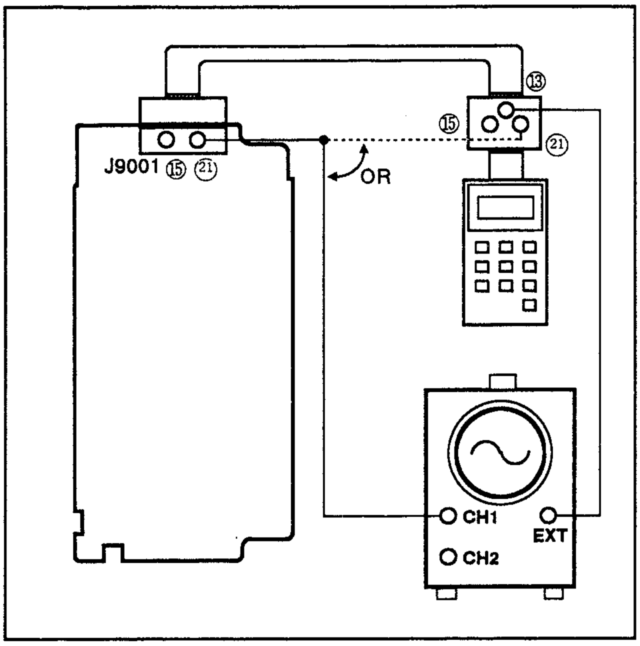


[Chroma waveform]

5. Operate the CH-UP key or the CH-DOWN key to designate EVR CH3.
   Adjust the gain and phase of the vectorscope so that the burst becomes 75 %.
   Operate the DATA-CENT key, DATA-UP key and DATA-DOWN key to focus the luminance points which indicate color vectors respectively. (See page 5-12)
6. Operate the CH-UP key or the CH-DOWN key to designate EVR CH4.
   Adjust the gain and phase of the vectorscope so that the burst becomes 75 %.
   Operate the DATA-CENT key, DATA-UP key and DATA-DOWN key to focus the luminance points which indicate color vectors respectively. (See page 5-12)
7. Repeat steps 5 and 6 until each luminance point is focused.
8. Press the WRT key once while pressing the AID key to store the adjusting data.

8. Y Level Adjustment

[Connection]



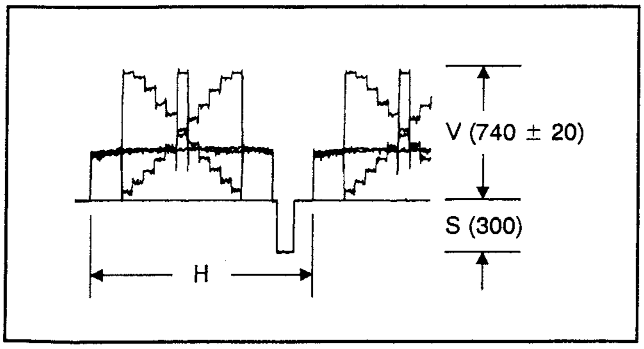
[Adjustment]

Measuring Point	Measuring Equipment	Condition
Test pin array J9001㉑ [CAMERA Y] J9001 ⑮ [GND]	Oscilloscope	CAMERA EE
	Subject	
	Gray scale (standard picture frame)	

ADJ. Location	ADJ. Value
EVR CH2	S : V = 300 : (740 ± 20)

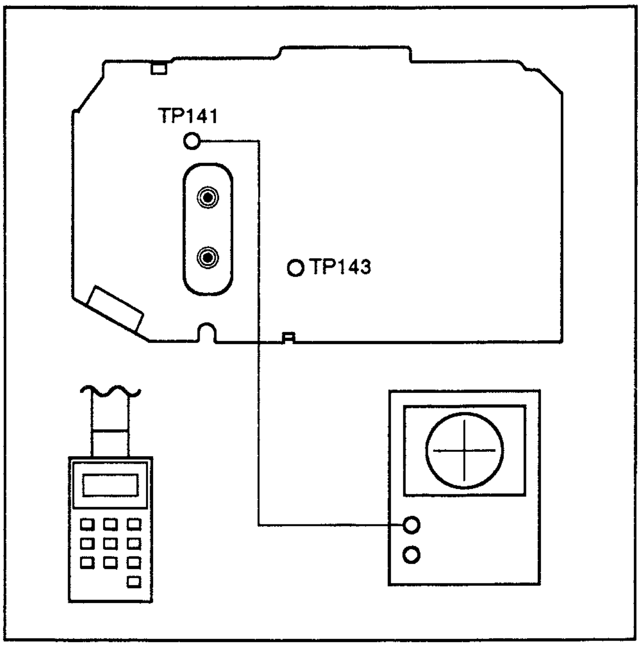
Preparation:
- Set the unit to manual focus.
- Short pin ⑧ and pin ⑮ of J9001.

Adjusting method:
1. Operate the CH-UP key or the CH-DOWN key to designate EVR CH2.
2. Operate the DATA-CENT key, DATA-UP key and DATA-DOWN key to set the S : V ratio to 300 : (740 ± 20).
3. Press the WRT key to store the adjusting data.



9. Carrier Balance Adjustment

[Connection]



[Adjustment]

Measuring Point	Measuring Equipment	Condition
TP141 [CP1] (video output) TP143 (GND)	Vectorscope	CAMERA EE
	Subject	
	Put the lens cap on.	

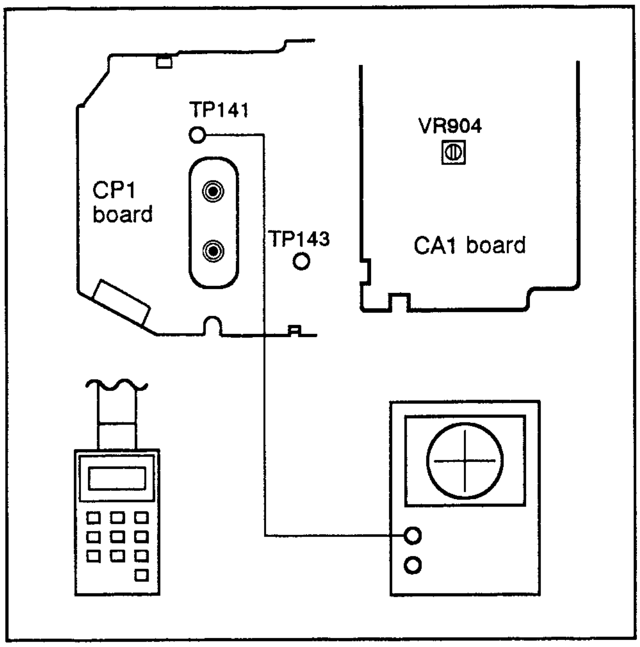
ADJ. Location	ADJ. Value
EVR CH5, CH6	

Preparation:
- Set the unit to manual focus.
- Short pin ⑧ and pin ⑮ of J9001.

Adjusting method:
1. Set the gain so that the burst comes to the end of the vectorscope.
2. Press the RESET key once.
3. Press the READ key once while pressing the AID key and read out all the EVR data.
4. Adjust two EVRs of CH5 and CH6 mutually so that the black vector displayed luminance point is positioned on the center point as shown in the figure. (See page 5-12)
5. Press the WRT key once while pressing the AID key to store the adjusting data.

10. Phase Adjustment

[Connection]



[Adjustment]

Measuring Point	Measuring Equipment	Condition
TP141 [CP1] (video output) TP143 (GND)	Vectorscope	CAMERA EE
	Subject	
	Color bar (standard picture frame)	

ADJ. Location	ADJ. Value
VR904	

Preparation:

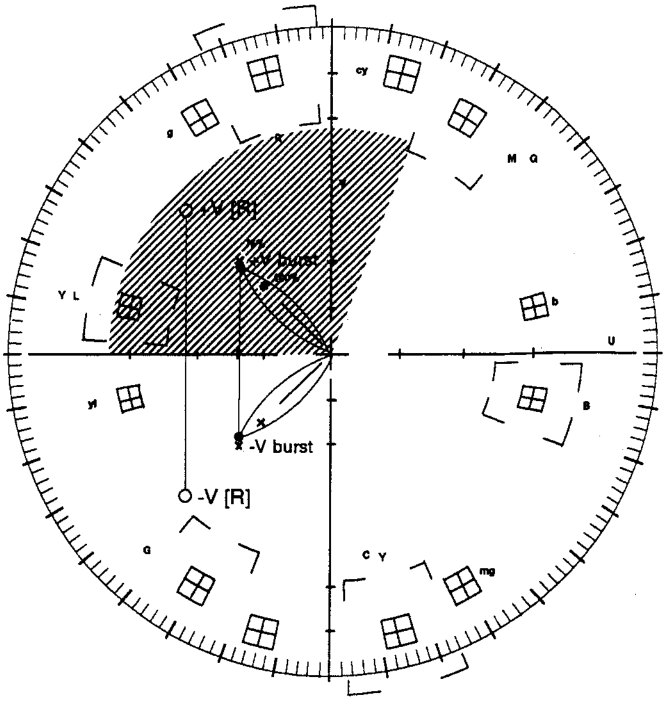
- Set the unit to manual focus.
- Short pin ⑧ and pin ⑮ of J9001.

Adjusting method:

1. Adjust the gain and phase of the vectorscope so that the burst becomes 75 %.
2. Set the line select switch of the vectorscope to "DISPLAY BOTH".
   (This means that the burst and chroma signals will be displayed at both the +V and -V sides.)
3. Adjust the phase of the vectorscope so that the burst is symmetrical with the B-Y axis at the +V and -V sides.
4. Check that the luminance point (+V [R]) which indicates the red vector at the +V side is in the range marked by the diagonal lines as shown in the figure.
   If it is not within this range, adjust by pressing the CH-UP/DOWN keys to alternately select EVR CH7 and CH8. For each channel, press the DATA-UP/DOWN keys to adjust the respective channel data so that the +V [R] is within the range marked by the diagonal lines.
   (Do not press the WRT key at this time.)
5. Adjust VR904 so that the luminance point which indicates the red vectors on both the +V side and the -V side are symmetrical to the B-Y axis.

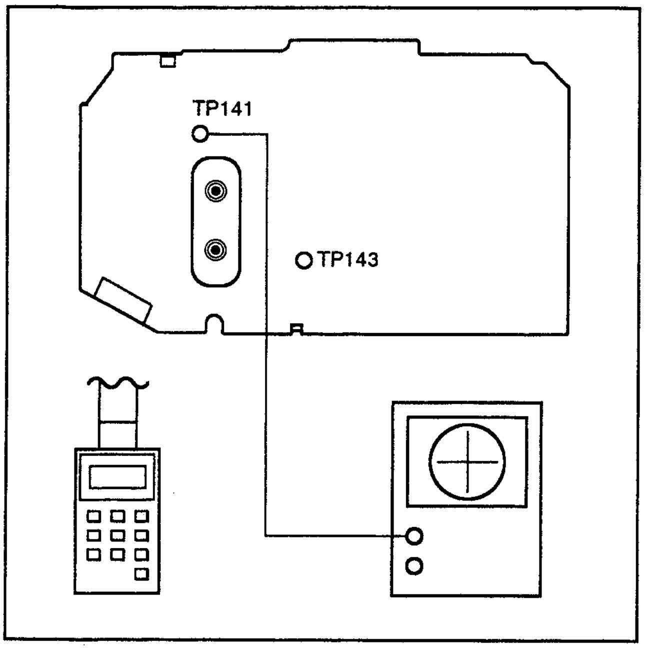
NOTE:

- When using a vectorscope which has a function for showing the burst signals for the +V and -V sides in overlapped format, change steps 3. and 5. of the above adjustment procedure as follows.
  3.: Overlap the burst at the +V side with the burst at the -V side.
  5.: Adjust VR904 so that the luminance points on both the +V side and the -V side are overlapping.
  These will make adjustment easier.



11. Hue and Chroma Level Adjustment

[Connection]



[Adjustment]

Measuring Point	Measuring Equipment	Condition
TP141 [CP1] (video output) TP143 (GND)	Vectorscope	CAMERA EE
	Subject	
	Color bar (standard picture frame)	

ADJ. Location	ADJ. Value
EVR CH7, CH8, CH9, CH10	

Preparation:

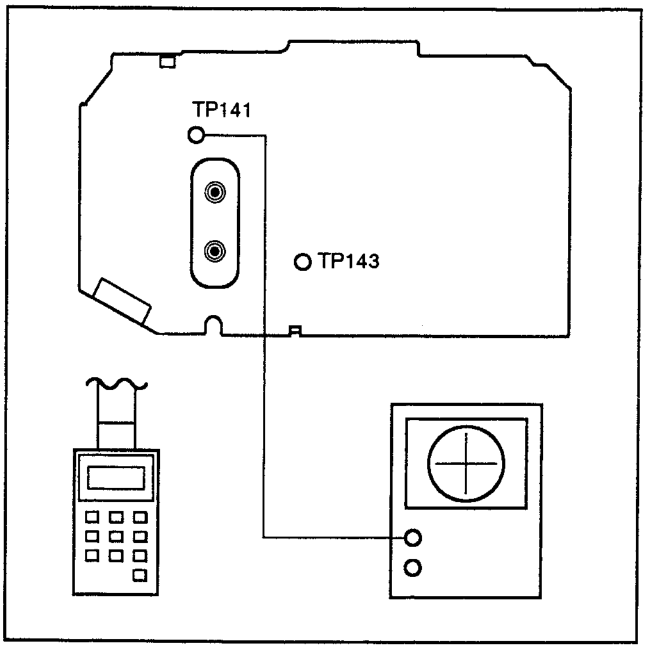
- Set the unit to manual focus.
- Short pin ⑧ and pin ⑮ of J9001.

Adjusting method:

1. Press the RESET key once.
2. Press the READ key once while pressing the AID key and read out all the EVR data.
3. Adjust the gain and phase of the vectorscope so that the burst becomes 75%.
4. Adjust temporarily the white balance. Designate CH11 and CH12 and match the white vector of the color bar with the center of the vectorscope. Press the WRT key pressing the AID key to store the temporary adjusting data.
5. Adjust the four EVRs of CH7, CH8, CH9 and CH10 alternately so that the luminance points which indicate red and yellow vectors are on the points as shown in the figure respectively. (See page 5-12)
6. Press the WRT key once while pressing the AID key to store the adjusting data.

12. 5,100K AWB Adjustment

[Connection]



[Adjustment]

Measuring Point	Measuring Equipment	Condition
TP141 [CP1] (video output) TP143 (GND)	Vectorscope Color viewer 5,100K	CAMERA EE
	Subject	
	All white pattern	

ADJ. Location	ADJ. Value
EVR CH11, CH12	

Preparation:

- Set the unit to manual focus.
- Short pin ⑧ and pin ⑮ of J9001.

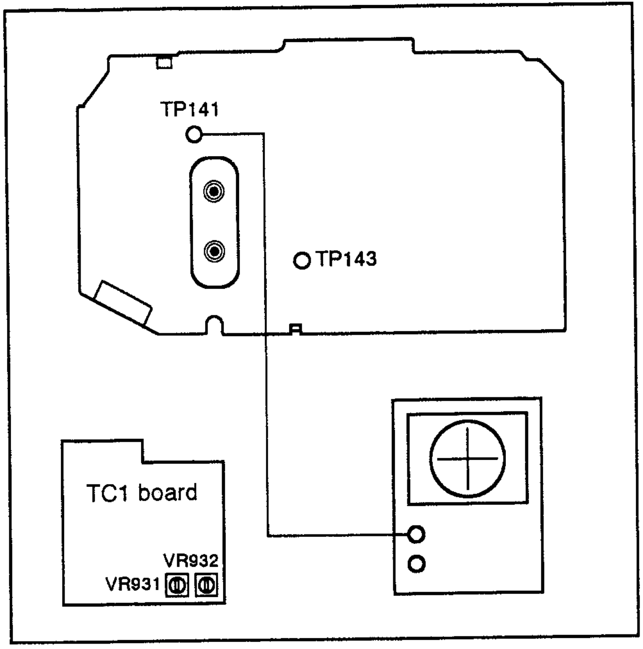
Adjusting method:

1. Set the gain so that the burst comes to the end of the vectorscope.
2. Press the RESET key once.
3. Press the READ key once while pressing the AID key and read out all the EVR data.
4. Adjust two EVRs of CH11 and CH12 mutually so that the white vector displayed luminance point is positioned on the point as shown in the figure. (See page 5-12)
5. Press the WRT key once while pressing the AID key to store the adjusting data.

EVR CH7	R – Y GAIN
EVR CH8	B – Y GAIN
EVR CH9	R – Y MATRIX
EVR CH10	B – Y MATRIX
EVR CH11	R CONTROL
EVR CH12	B CONTROL

13. 2,800K AWB Adjustment

[Connection]



[Adjustment]

Measuring Point	Measuring Equipment	Condition
TP141[CP1] (video output) TP143 (GND)	Vectorscope Color viewer 5,100K	CAMERA EE
	Subject	
	All white pattern (Place two LBA8s in front of the lens)	
ADJ. Location	**ADJ. Value**	
VR931 (R. G) VR932 (B. G)		

Preparation:

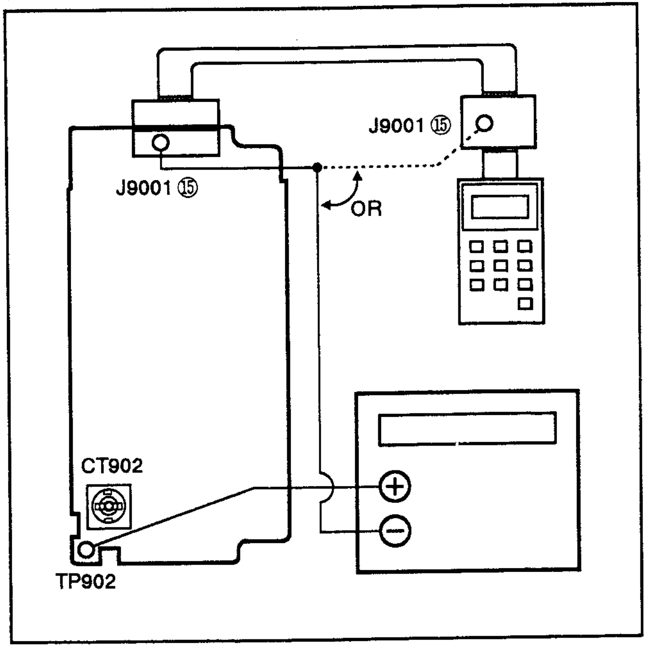
- Set the unit to manual focus.
- Short pin ⑧, pin ⑨ and pin ⑮ of J9001.

Adjusting method:

1. Set the gain so that the burst comes to the end of the vectorscope.
2. Adjust with the VR931 (R. G) and VR932 (B. G) so that the white vector displayed luminance point is positioned on the point as shown in the figure. (See page 5-12)

14. PLL Voltage Adjustment

[Connection]



[Adjustment]

Measuring Point	Measuring Equipment	Condition
TP902 [PLL] J9001 ⑮ [GND]	Digital voltmeter	CAMERA EE
	Subject	
	No designation	
ADJ. Location	**ADJ. Value**	
CT902	2.4 ± 0.1 VDC	

Adjusting method:

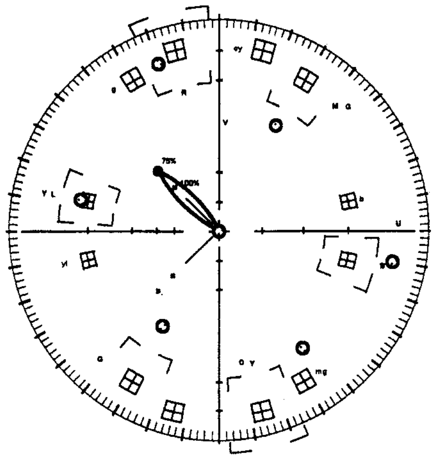
1. Turn CT902 so that the voltage of TP902 becomes 2.4 ± 0.1 VDC.

NOTE:

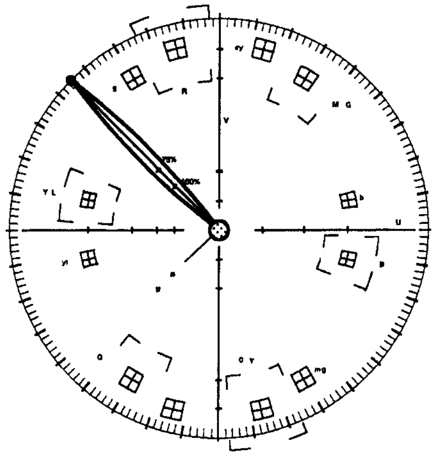
- Perform the adjustment especially after aging for more than ten minutes.

[Vectorscope display]

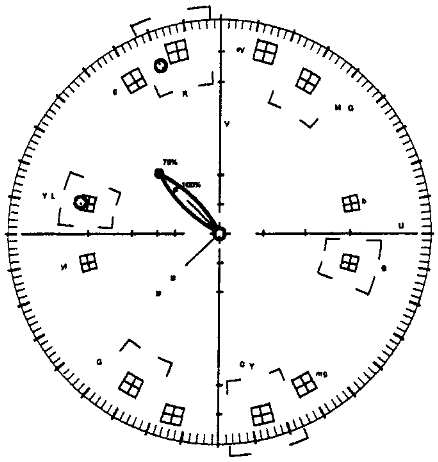
7. Chroma Delay Adjustment


R
MG
B
CY
G
YL
V
U
75%
100%

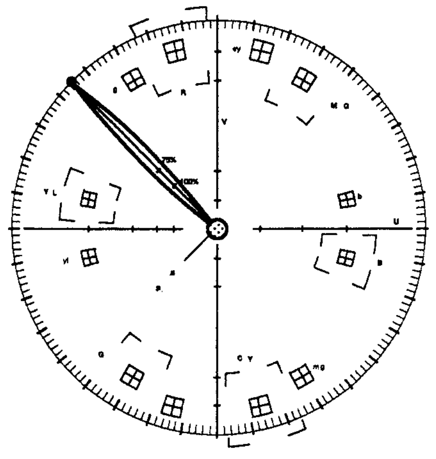
9. Carrier Balance Adjustment


R
MG
B
CY
G
YL
V
U
75%
100%

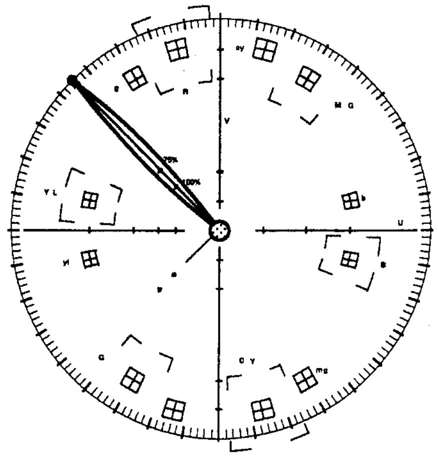
11. Hue and Chroma Level Adjustment


R
MG
B
CY
G
YL
V
U
75%
100%

12. 5,100K AWB Adjustment


R
MG
B
CY
G
YL
V
U
75%
100%

13. 2,800K AWB Adjustment


R
MG
B
CY
G
YL
V
U
75%
100%

2. VTR BLOCK ADJUSTMENT

2-1. EQUIPMENTS

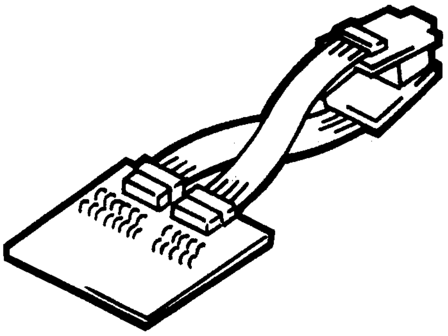
1. Monitor TV
2. Oscilloscope 2 phenomena, band 10 MHz or wider, delay mode. (Use 10 : 1 probe unless otherwise specified.)
3. Frequency counter, Universal counter
4. Pattern generator with video output terminal
   Note: One on which the chroma signal can be turned off)
5. Regulated power supply
6. Alignment tape
7. MP tape
8. Circuit board connecting tool
9. Alligator clip lead wire

2-2. ALIGNMENT TAPE

For video frequency characteristics adjustment (WR5-6C) : Part code; 96-7995-17
For operation check (WR5-5CSP) : Part code; 96-7995-47

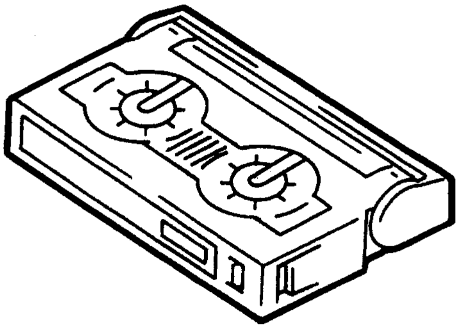
Name	Contents		Application
Video frequency characteristics (WR5-6C)	1. Recorded area 2. Recorded contents 3. Marker	Video RF sweep 0 to 10 MHz 1, 3.58, 5.5, 7 MHz	Frequency characteristics adjustment
Operation check (WR5-5CSP)	1. Recorded area 2. Recorded contents	Video, audio Color bar, monoscope (SP) Audio signal (FM), PCM audio signal	Operation check

J-9



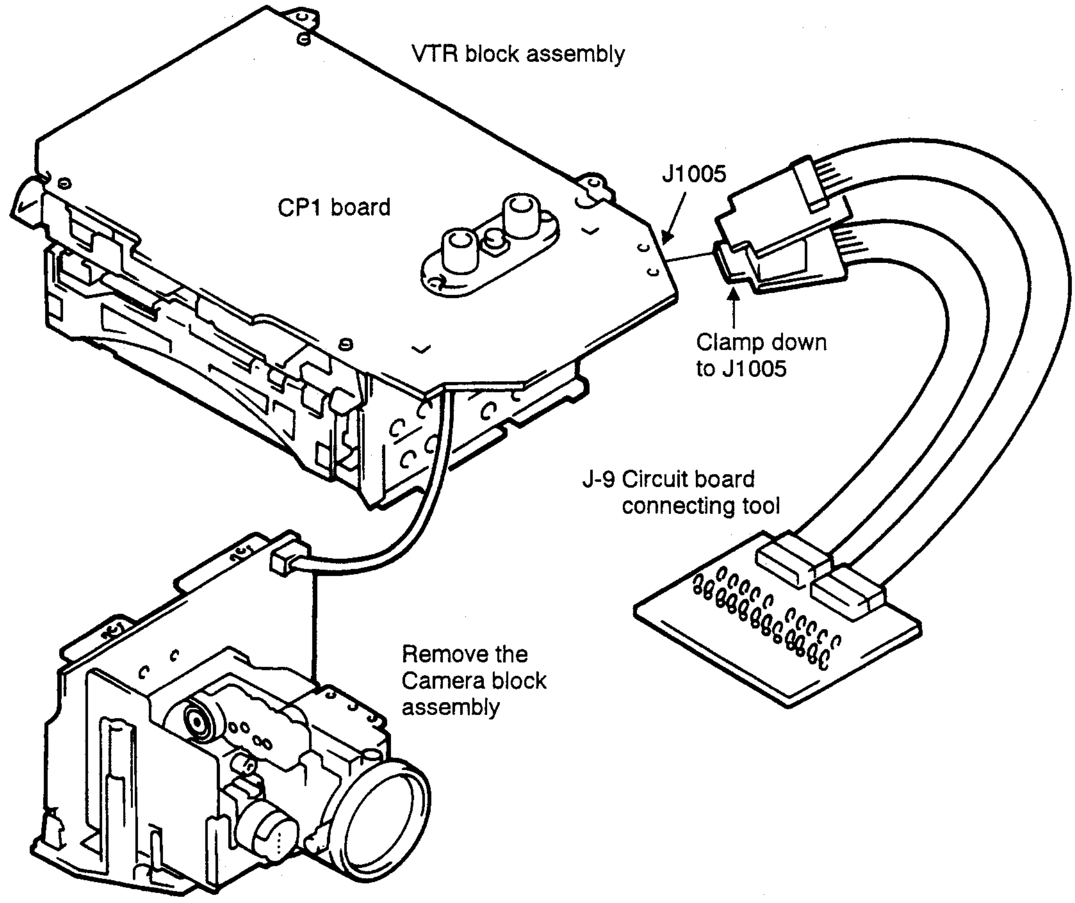
Circuit board connecting tool

J-15, J-16



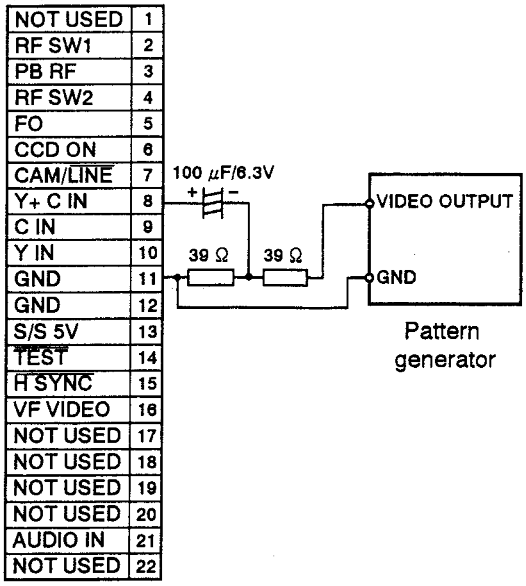
WR5-6C, WR5-5CSP

2-3. SETUP AND CONNECTION


VTR block assembly
J1005
CP1 board
Clamp down to J1005
J-9 Circuit board connecting tool
Remove the Camera block assembly

(Video circuit adjustment pattern generator input signal connecting method)

J1005

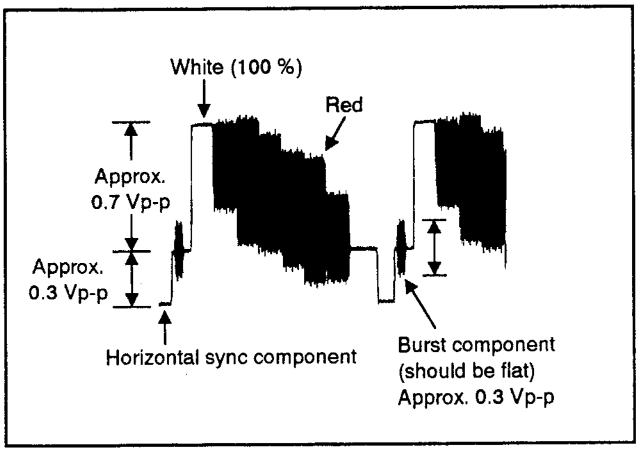

100 μF/6.3V
+
−
39 Ω
39 Ω
VIDEO OUTPUT
GND
Pattern generator

NOT USED	1
RF SW1	2
PB RF	3
RF SW2	4
FO	5
CCD ON	6
CAM/$\overline{\text{LINE}}$	7
Y+C IN	8
C IN	9
Y IN	10
GND	11
GND	12
S/S 5V	13
$\overline{\text{TEST}}$	14
$\overline{\text{H SYNC}}$	15
VF VIDEO	16
NOT USED	17
NOT USED	18
NOT USED	19
NOT USED	20
AUDIO IN	21
NOT USED	22

CP1 Board

2-4. SETUP FOR ADJUSTMENT

For adjustment of the VTR section, the video signal from the pattern generator is used as the adjustment signal.
Therefore, it is necessary that this video output signal is within the specified level.
Confirm that the amplitude of the sync signal of the video signal is about 0.3 Vp-p, that the amplitude of the video section is about 0.7 Vp-p, that the amplitude of the burst signal is about 0.3 Vp-p and is flat, and that the level ratio of the burst signal and the "red" signal is 0.30 : 0.66.

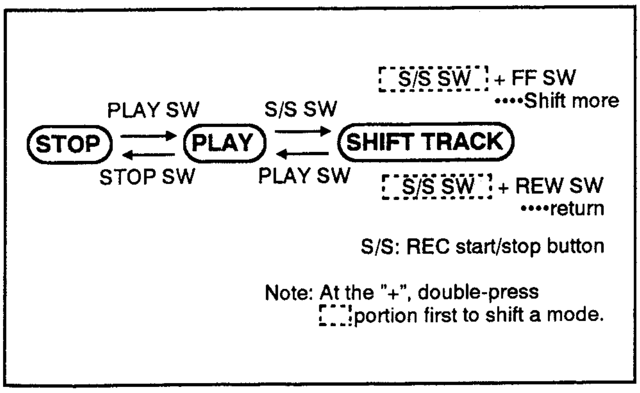


[ADJ mode]

ADJ mode can be entered by short-circuiting pin ⑪ [GND] and pin ⑭ [$\overline{\text{TEST}}$] of J1005.
However, when in CAMERA mode (POWER switch: "CAMERA", Stand-by switch: "READY"), mode shifting cannot be made as shown below.

[ADJ function]

- Stops the reel rotation checking operation.
- Stops the discrimination of SP/LP mode in playback mode.



Note: SHIFT TRACK mode is used for Mechanism tracking adjustment.

2-5. ADJUSTMENT ITEM AND ORDER

[Servo/System Control Circuit]

1. ON-screen character position adjustment
2. Video center adjustment

[Video Circuit]

1. Playback frequency characteristics check
2. Flying erase check
3. Sync AGC adjustment
4. Trap fo adjustment
5. Comb filter phase adjustment
6. Comb filter level adjustment
7. PB line out Y level adjustment
8. PB Y level check
9. Y FM carrier frequency adjustment
10. Y FM deviation adjustment
11. REC Y recording current check
12. REC C recording current adjustment
13. REC AFM recording current check
14. REC ATF recording current check

[Audio Circuit]

1. fo adjustment
2. Deviation check
3. Overall level check
4. Overall S/N check

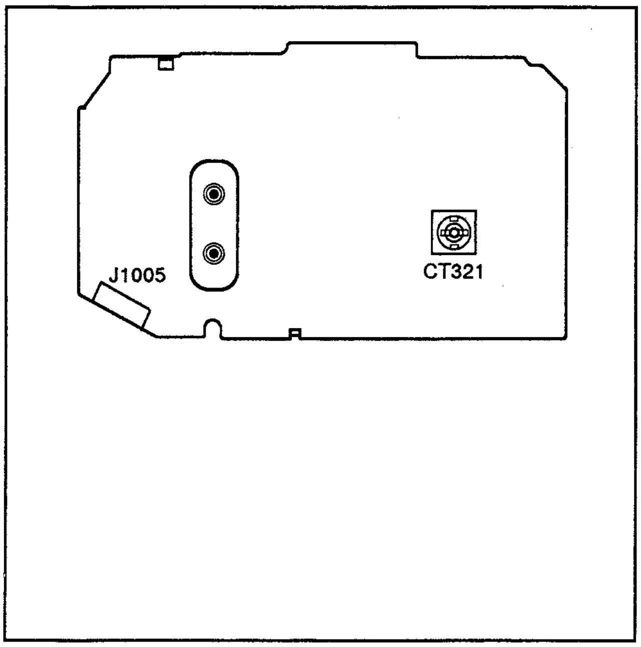
[Viewfinder Circuit]

1. Horizontal oscillation frequency adjustment
2. Viewfinder provisional adjustment
3. Centering adjustment
4. Horizontal size & viewfinder slant adjustment
5. Vertical size adjustment
6. Brightness adjustment
7. Focus adjustment

2-6. SERVO/SYSTEM CONTROL CIRCUIT

1. On-screen Character Position Adjustment

[Connection]



[Adjustment / Check]

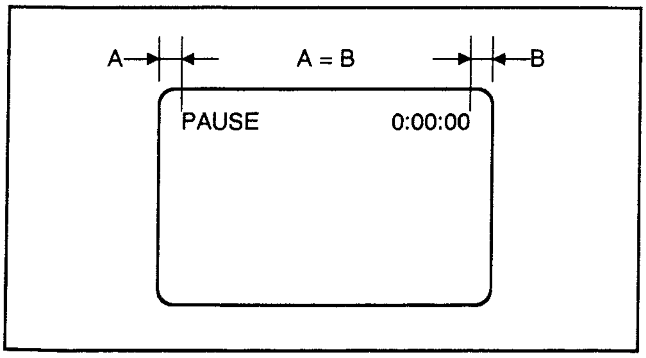
Measuring Point	Measuring Equipment	Condition
Viewfinder		Recording Pause
	Input Signal / Alignment Tape	
ADJ. Location	**ADJ. / Check Value**	
CT321		

Preparation:

- POWER switch: "CAMERA"
- Stand-by switch: "READY"

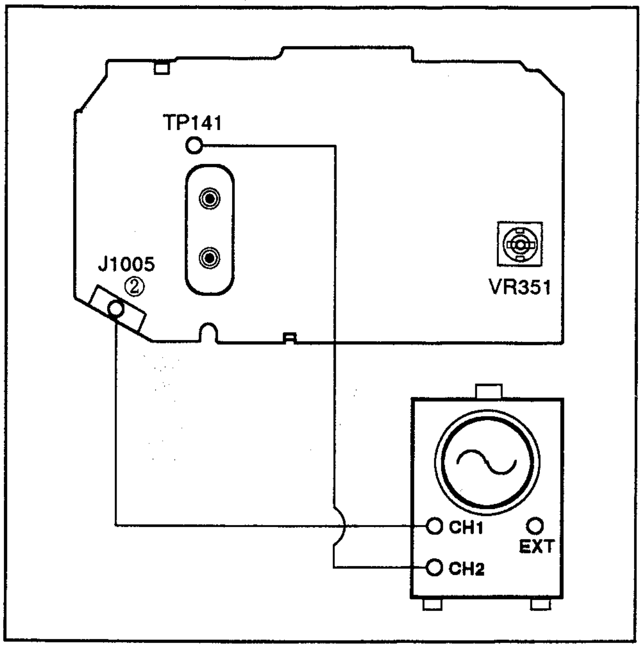
Adjusting / Checking method:

1. Adjust as illustrated with CT321.



2. Video Center Adjustment

[Connection]



[Adjustment / Check]

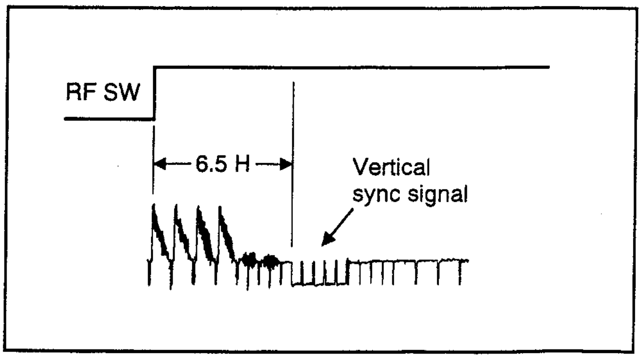
Measuring Point	Measuring Equipment	Condition
J1005 ② (CH1) TP141 (CH2) J1005 ⑪ (GND)	Oscilloscope	Playback
	Input Signal / Alignment Tape	
	(WR5-5CSP): For operation check	
ADJ. Location	**ADJ. / Check Value**	
VR351	6.5 ± 0.3 H	

Preparation:

- POWER switch: "PLAYER"
- Short pin ⑪ and pin ⑭ of J1005.

Adjusting / Checking method:

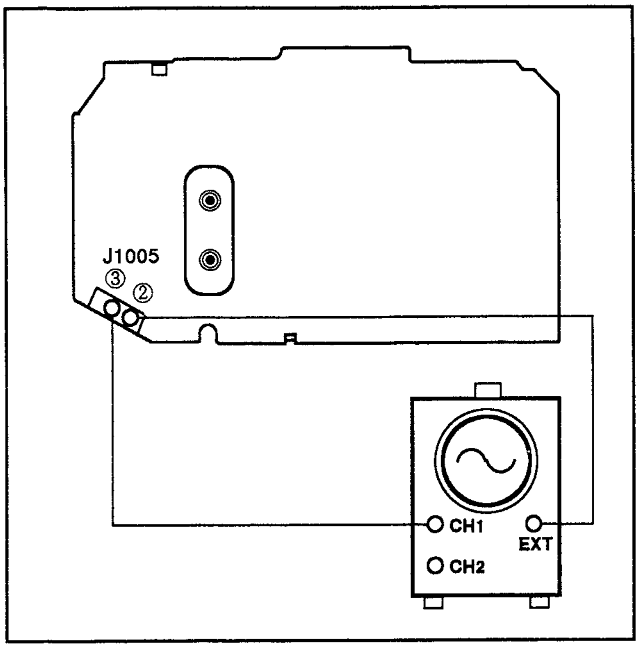
1. Adjust the vertical sync signal to 6.5 H from the rising edge (or falling edge) of the RF SW with VR351.



2-7. VIDEO CIRCUIT

1. Playback Frequency Characteristics Check

[Connection]



[Adjustment / Check]

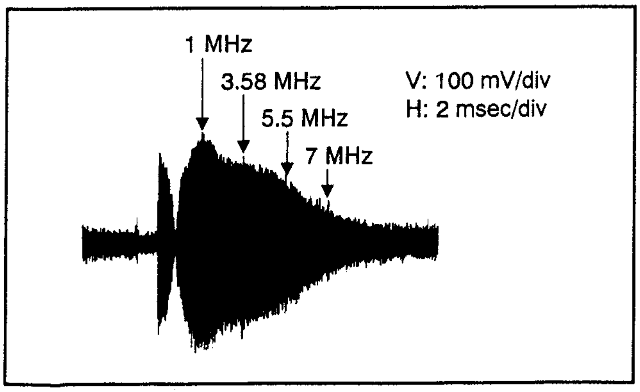
Measuring Point	Measuring Equipment	Condition
J1005③(CH1) J1005②(EXT) J1005⑪(GND)	Oscilloscope	Playback
	Input Signal / Alignment Tape	
	(WR5-6C): For frequency characteristics check	
ADJ. Location	**ADJ. / Check Value**	
	3.58 MHz : 5.5 MHz = 4 : 3	

Preparation:

- POWER switch: "PLAYER"
- Trigger slope [+]: CH-A, [–]: CH-B

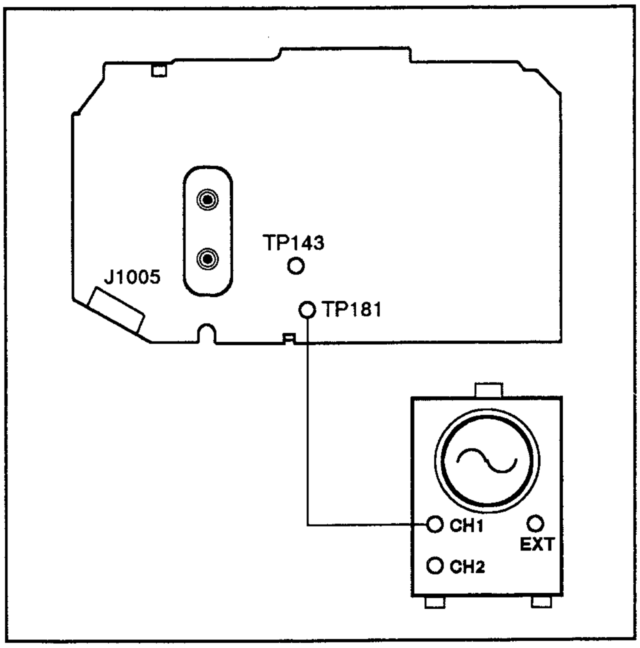
Adjusting / Checking method:

1. Confirm that the ratio between 3.58 MHz level and 5.5 MHz level is nearly 4 : 3.



2. Flying Erase Check

[Connection]



[Adjustment / Check]

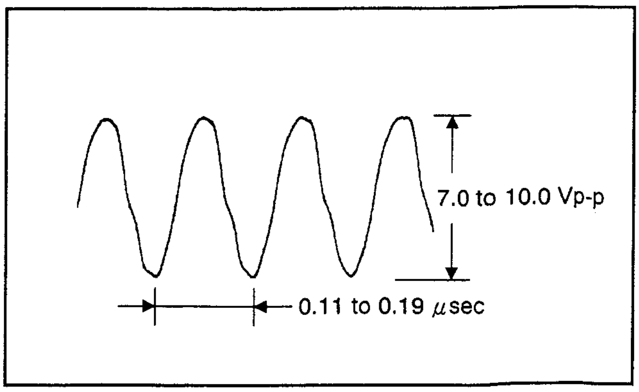
Measuring Point	Measuring Equipment	Condition
TP181 (CH1) TP143 (GND)	Oscilloscope	Record
	Input Signal / Alignment Tape	
	Arbitrary	
ADJ. Location	**ADJ. / Check Value**	
	Oscillation frequency: 5.5 to 8.5 MHz Oscillation voltage: 7.0 to 10.0 Vp-p	

Preparation:

- POWER switch: "CAMERA" / Stand-by switch: "READY"
- Short pin ⑦ and pin ⑪ of J1005.

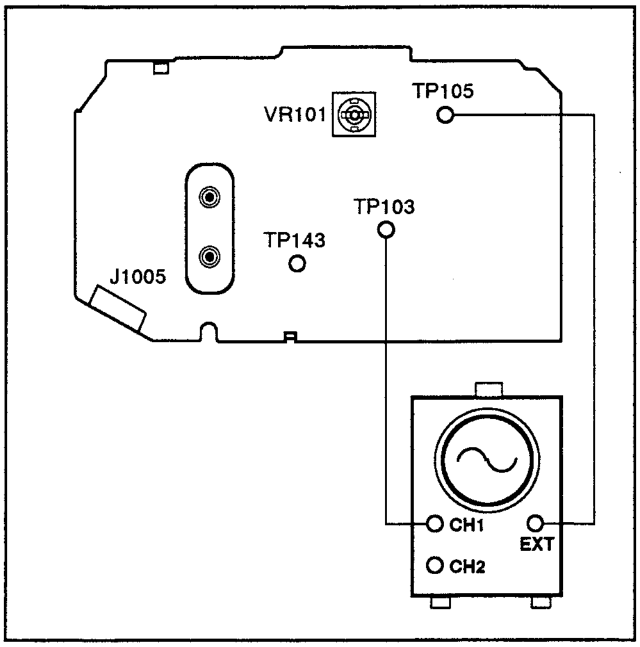
Adjusting / Checking method:

1. Confirm that the oscillation frequency is 5.5 to 8.5 MHz, and that the oscillation voltage is 7.0 to 10.0 Vp-p.



3. SYNC AGC Adjustment

[Connection]



[Adjustment / Check]

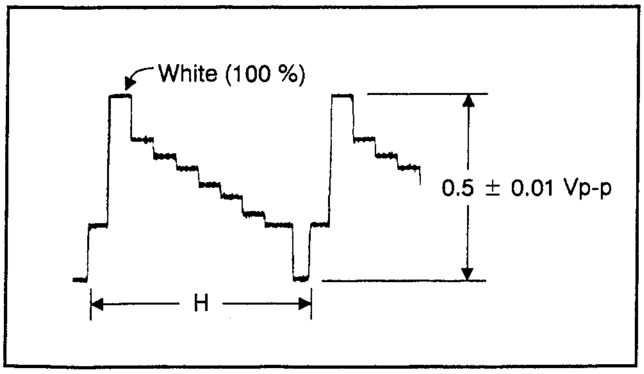
Measuring Point	Measuring Equipment	Condition
TP103 (CH1) TP105 (EXT) TP143 (GND)	Oscilloscope	Stop
	Input Signal / Alignment Tape	
	Color bar (Y signal only)	
ADJ. Location	**ADJ. / Check Value**	
VR101	0.5 ± 0.01 Vp-p	

Preparation:

- POWER switch: "PLAYER"
- Short pin ⑥, pin ⑦, pin ⑪ and pin ⑭ of J1005.

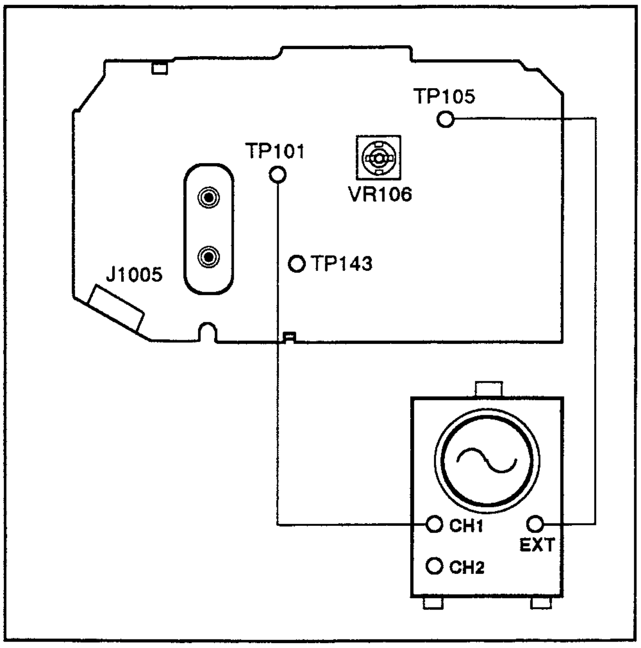
Adjusting / Checking method:

1. Adjust with VR101 to 0.5 ± 0.01 Vp-p.



4. Trap f_0 Adjustment

[Connection]



[Adjustment / Check]

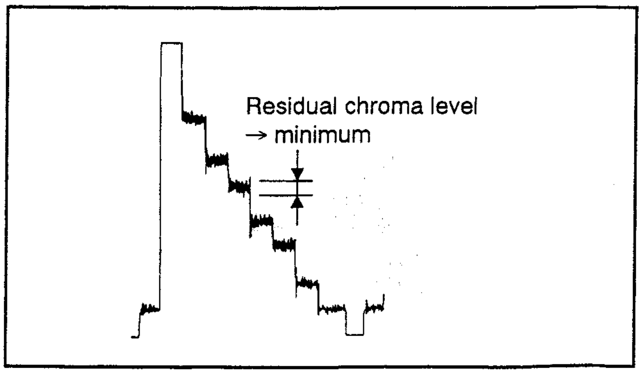
Measuring Point	Measuring Equipment	Condition
TP101 (CH1) TP105 (EXT) TP143 (GND)	Oscilloscope	Stop
	Input Signal / Alignment Tape	
	Color bar	
ADJ. Location	**ADJ. / Check Value**	
VR106		

Preparation:

- POWER switch: "PLAYER"
- Short pin ⑥, pin ⑦, pin ⑪ and pin ⑭, then short pin ⑤ and pin ⑬ of J1005.

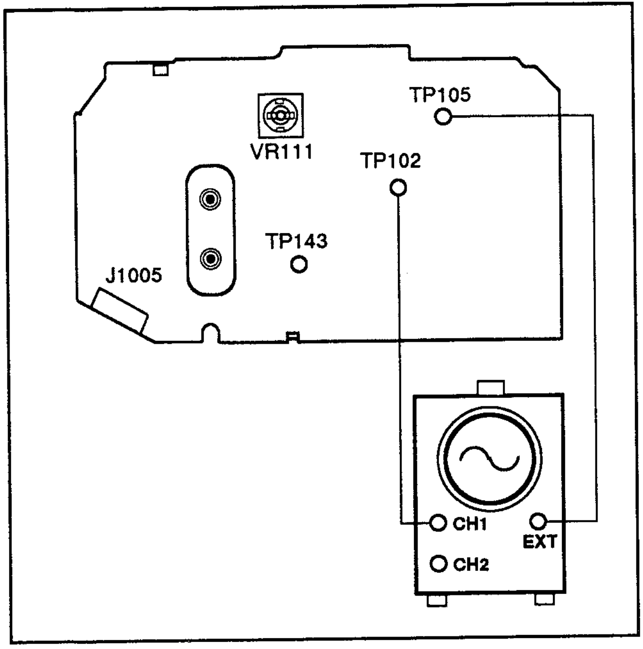
Adjusting / Checking method:

1. Adjust with VR106 so that the amplitude (residual chroma level) of green becomes minimum (below 50 mVp-p).



5. Comb Filter Phase Adjustment

[Connection]



[Adjustment / Check]

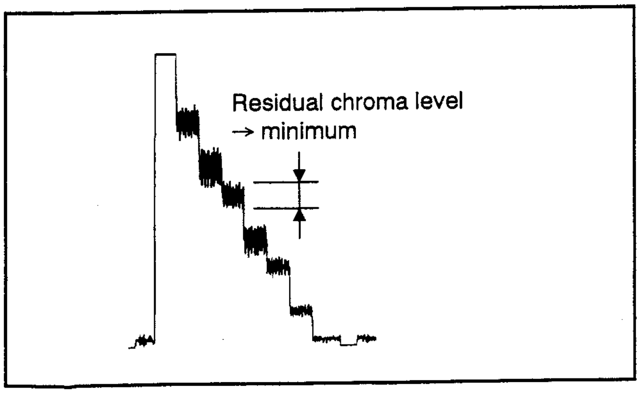
Measuring Point	Measuring Equipment	Condition
TP102 (CH1) TP105 (EXT) TP143 (GND)	Oscilloscope	Stop
	Input Signal / Alignment Tape	
	Color bar	
ADJ. Location	**ADJ. / Check Value**	
VR111		

Preparation:

- POWER switch: "PLAYER"
- Short pin ⑥, pin ⑦, pin ⑪ and pin ⑭ of J1005.

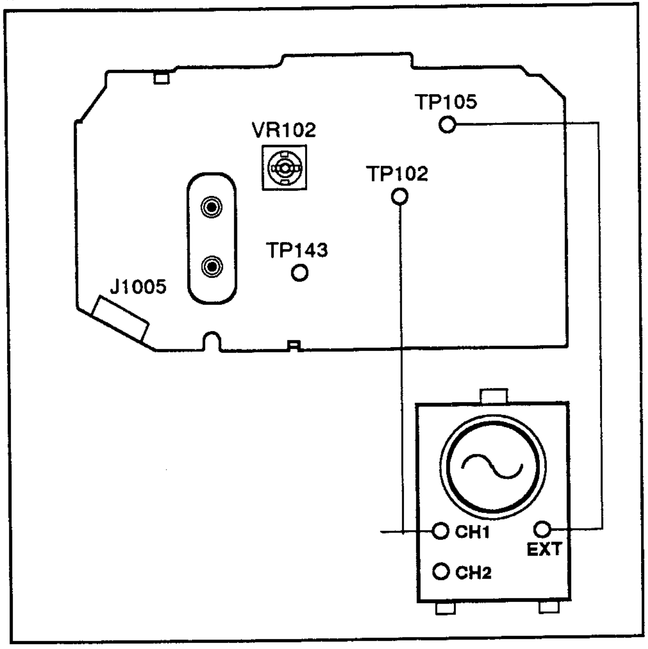
Adjusting / Checking method:

1. Adjust with VR111 so that the amplitude (residual chroma level) of green becomes minimum.



6. Comb Filter Level Adjustment

[Connection]



[Adjustment / Check]

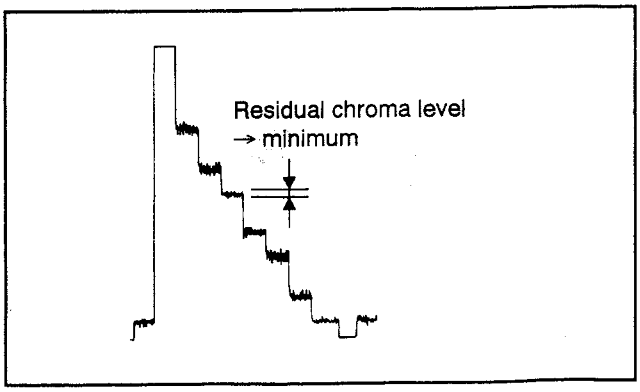
Measuring Point	Measuring Equipment	Condition
TP102 (CH1) TP105 (EXT) TP143 (GND)	Oscilloscope	Stop
	Input Signal / Alignment Tape	
	Color bar	
ADJ. Location	**ADJ. / Check Value**	
VR102		

Preparation:

- POWER switch: "PLAYER"
- Short pin ⑥, pin ⑦, pin ⑪ and pin ⑭ of J1005.

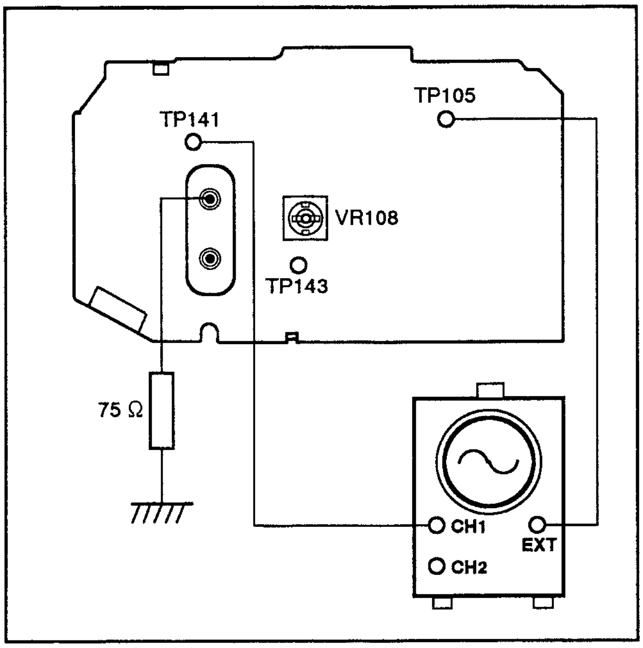
Adjusting / Checking method:

1. Adjust with VR102 so that the amplitude (residual chroma level) of greeen becomes minimum (below 40 mVp-p).



7. PB LINE OUT Y Level Adjustment

[Connection]

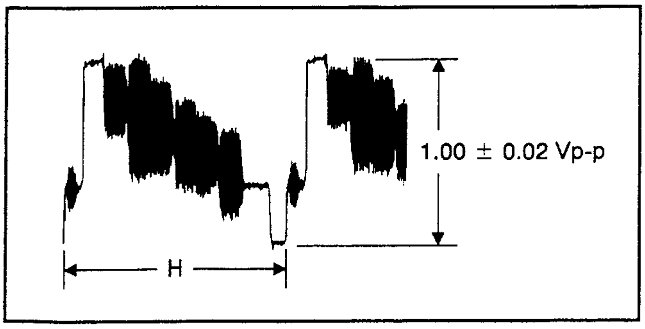


[Adjustment / Check]

Measuring Point	Measuring Equipment	Condition
TP141 (CH1) TP105 (EXT) TP143 (GND)	Oscilloscope	Playback
	Input Signal / Alignment Tape	
	(WR5-5CSP): For operation check, color bar portion	
ADJ. Location	**ADJ. / Check Value**	
VR108	1.00 ± 0.02 Vp-p	

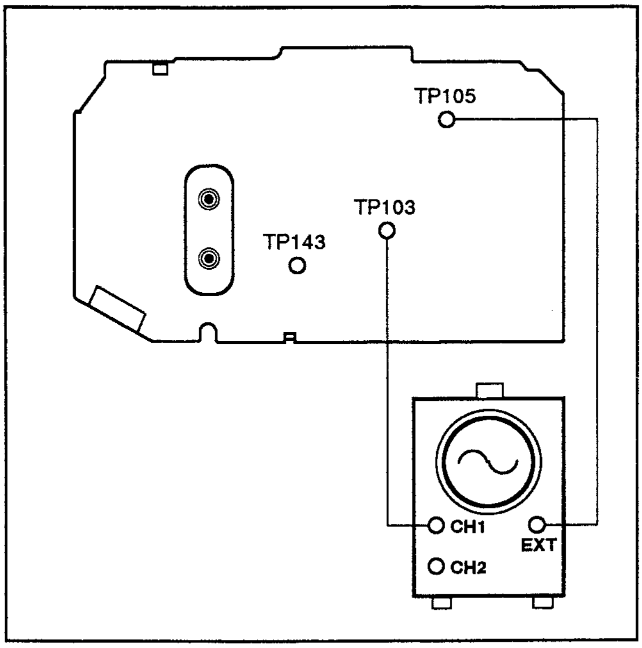
Preparation:
- POWER switch: "PLAYER"
- An AV cord should be connected, and the video output terminal should be terminated at 75 Ω .

Adjusting / Checking method:
1. Adjust with VR108 to 1.00 ± 0.02 Vp-p.



8. PB Y Level Check

[Connection]

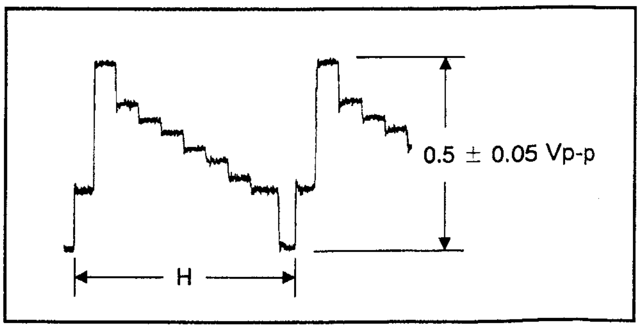


[Adjustment / Check]

Measuring Point	Measuring Equipment	Condition
TP103 (CH1) TP105 (EXT) TP143 (GND)	Oscilloscope	Playback
	Input Signal / Alignment Tape	
	(WR5-5CSP): For operation check, color bar portion	
ADJ. Location	**ADJ. / Check Value**	
	0.5 ± 0.05 Vp-p	

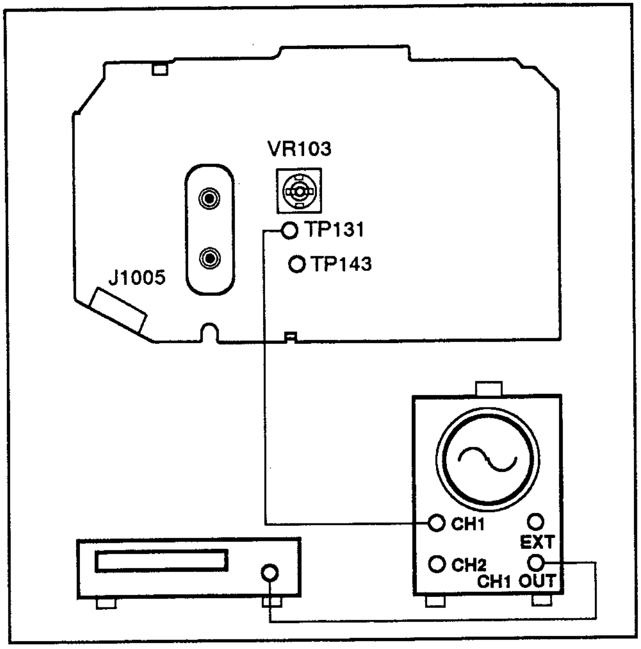
Preparation:
- POWER switch: "PLAYER"

Adjusting / Checking method:
1. Confirm that the playback level is 0.5 ± 0.05 Vp-p.



9. Y FM Carrier Frequency Adjustment

[Connection]



[Adjustment / Check]

Measuring Point	Measuring Equipment	Condition
TP131 (CH1) TP143 (GND)	Oscilloscope Frequency counter	Record
	Input Signal / Alignment Tape	
	No signal	
ADJ. Location	**ADJ. / Check Value**	
VR103	4.39 ± 0.05 MHz	

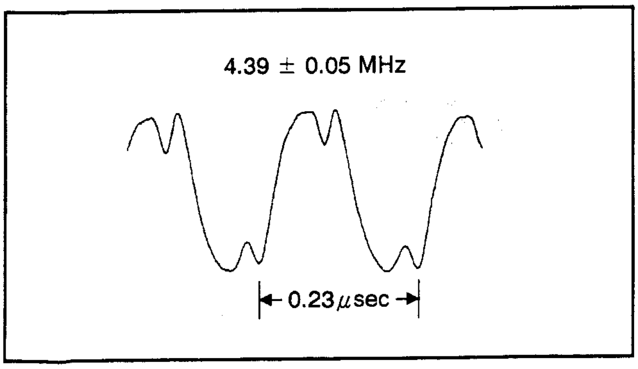
Preparation:

- POWER switch: "CAMERA" / Stand-by switch: "READY"
- Short pin ⑥, pin ⑦, pin ⑪ and pin ⑭ of J1005.

Adjusting / Checking method:

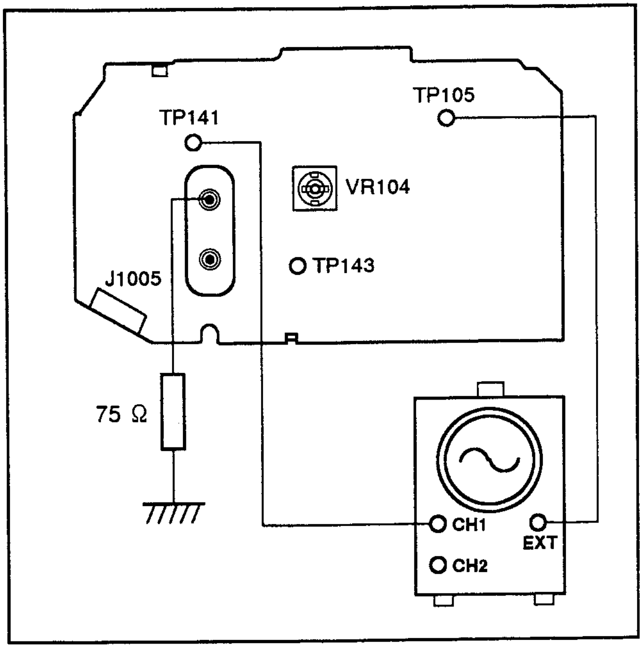
1. Adjust with VR103 to 4.39 ± 0.05 MHz.

- If adjusted to 4.39 MHz in no signal state, the frequency of sync tip is set to 4.20 MHz when there is a signal.



10. Y FM Deviation Adjustment

[Connection]



[Adjustment / Check]

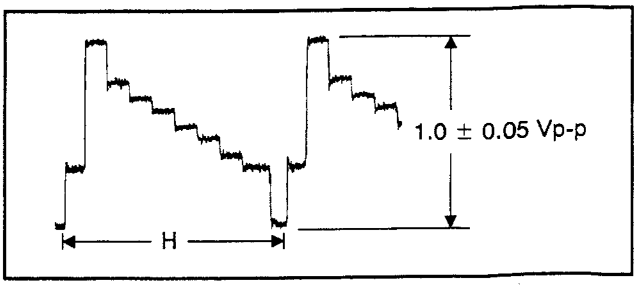
Measuring Point	Measuring Equipment	Condition
TP141 (CH1) TP105 (EXT) TP143 (GND)	Oscilloscope MP type tape	Record and Playback
	Input Signal / Alignment Tape	
	Color bar (Y signal only)	
ADJ. Location	**ADJ. / Check Value**	
VR104	1.00 ± 0.05 Vp-p	

Preparation:

- Stand-by switch: "READY" / POWER switch: "CAMERA" and "PLAYER" / Short pin ⑦, pin ⑪ and pin ⑭ of J1005.
- An AV cord should be connected, and the video output terminal should be terminated at 75 Ω.

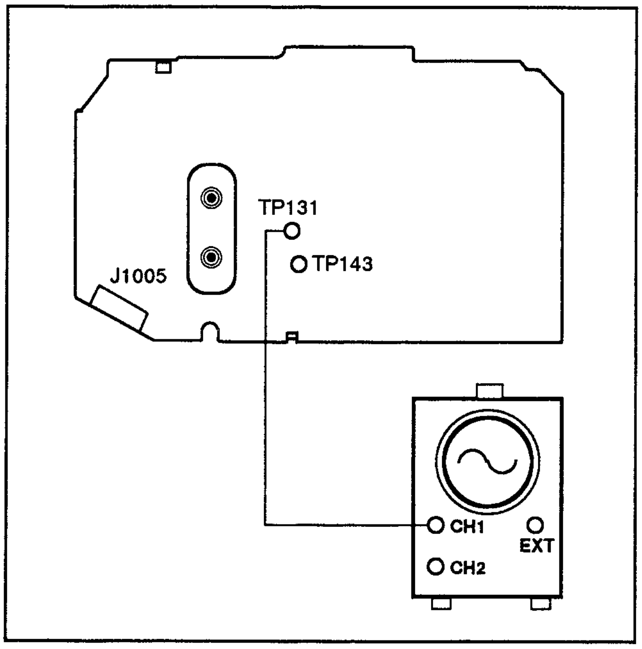
Adjusting / Checking method:

1. Record the color bar Y signal.
2. Play back the recorded signal.
3. Check the playback level.
   It should be within 1.00 ± 0.05 Vp-p.
4. When the level does not meet the specification, turn VR104 as follows, and repeat 1. to 3.
   Counterclockwise (↺): When larger than specified value
   Clockwise (↻): When smaller than specified value



11. REC Y Recording Current Check

[Connection]


TP131
TP143
J1005
CH1
EXT
CH2

[Adjustment / Check]

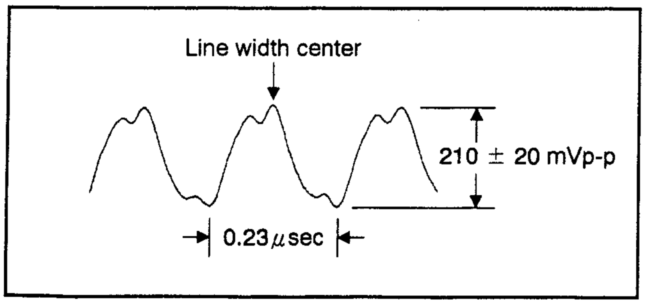
Measuring Point	Measuring Equipment	Condition
TP131 (CH1) TP143 (GND)	Oscilloscope MP type tape	Record
	Input Signal / Alignment Tape	
	No signal	
ADJ. Location	**ADJ. / Check Value**	
	210 ± 20 mVp-p	

Preparation:

- POWER switch: "CAMERA" / Stand-by switch: "READY"
- Short pin ⑥, pin ⑦, pin ⑪ and pin ⑭ of J1005.

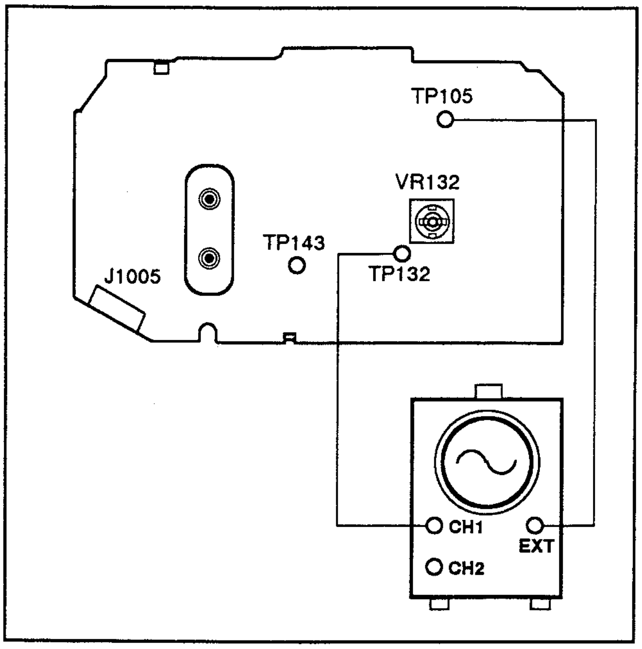
Adjusting / Checking method:

1. Confirm that the recording level is 210 ± 20 mVp-p.


Line width center
210 ± 20 mVp-p
0.23μsec

12. REC C Recording Current Adjustment

[Connection]


TP105
VR132
TP143
TP132
J1005
CH1
EXT
CH2

[Adjustment / Check]

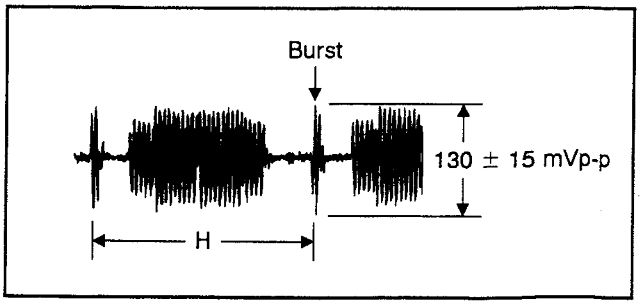
Measuring Point	Measuring Equipment	Condition
TP132 (CH1) TP105 (EXT) TP143 (GND)	Oscilloscope MP type tape	Record
	Input Signal / Alignment Tape	
	Color bar	
ADJ. Location	**ADJ. / Check Value**	
VR132	130 ± 15 mVp-p	

Preparation:

- POWER switch: "CAMERA" / Stand-by switch: "READY"
- Short pin ⑥, pin ⑦, pin ⑪ and pin ⑭ of J1005.

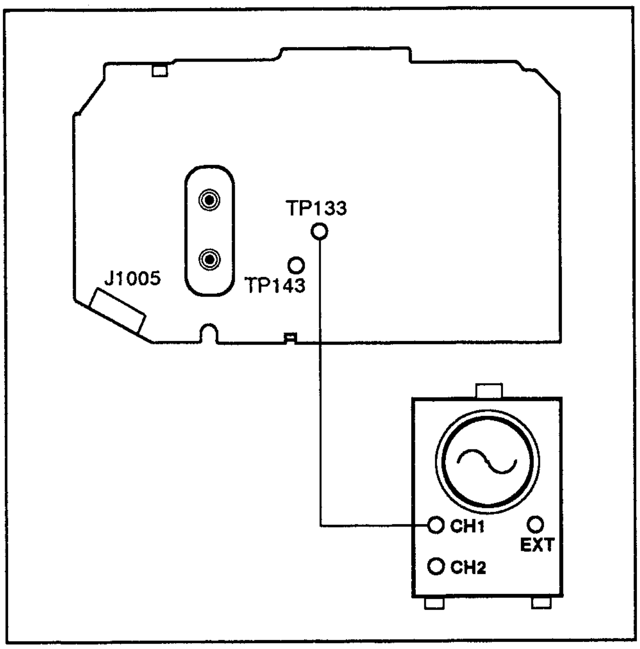
Adjusting / Checking method:

1. Adjust with VR132 so that the burst level becomes 130 ± 15 mVp-p.


Burst
130 ± 15 mVp-p
H

13. REC AFM Recording Current Check

[Connection]

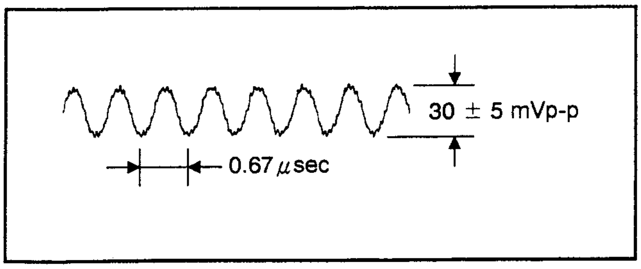


[Adjustment / Check]

Measuring Point	Measuring Equipment	Condition
TP133 (CH1) TP143 (GND)	Oscilloscope MP type tape	Record
	Input Signal / Alignment Tape	
	Color bar (Audio input: No signal)	
ADJ. Location	**ADJ. / Check Value**	
	30 ± 5 mVp-p	

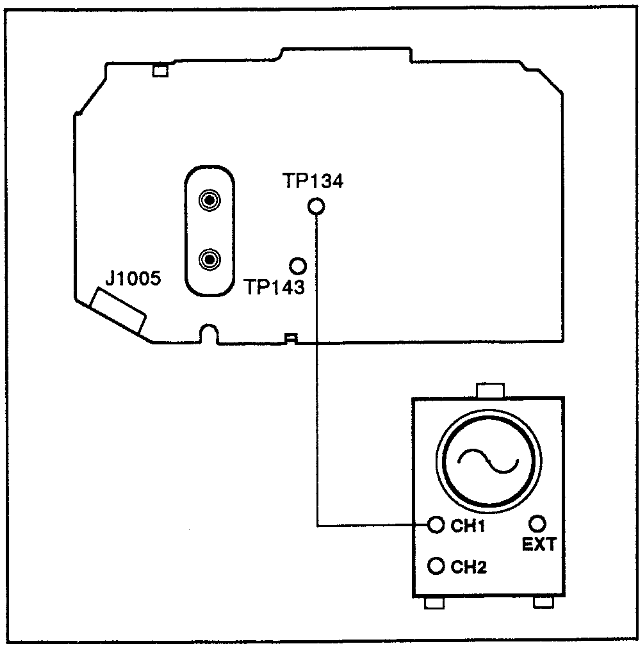
Preparation:
- POWER switch: "CAMERA" / Stand-by switch: "READY"
- Short pin ⑥, pin ⑦, pin ⑪ and pin ⑭ of J1005.

Adjusting / Checking method:
1. Confirm that the oscillation voltage is 30 ± 5 mVp-p.



14. REC ATF Recording Current Check

[Connection]

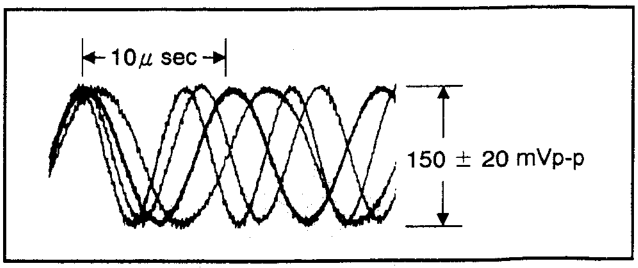


[Adjustment / Check]

Measuring Point	Measuring Equipment	Condition
TP134 (CH1) TP143 (GND)	Oscilloscope MP type tape	Record
	Input Signal / Alignment Tape	
	Color bar	
ADJ. Location	**ADJ. / Check Value**	
	150 ± 20 mVp-p	

Preparation:
- POWER switch: "CAMERA" / Stand-by switch: "READY"
- Short pin ⑥, pin ⑦, pin ⑪ and pin ⑭ of J1005.

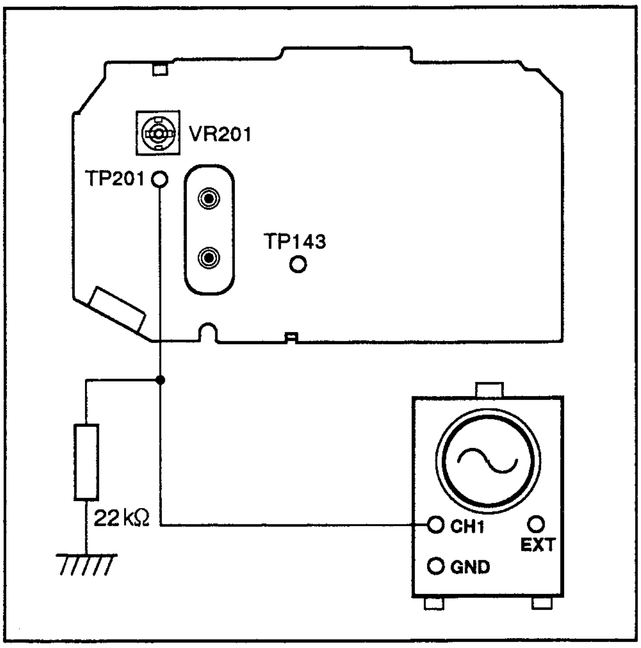
Adjusting / Checking method:
1. Confirm that the oscillation voltage is 150 ± 20 mVp-p.



2-8. AUDIO CIRCUIT

1. fo Adjustment

[Connection]



[Adjustment / Check]

Measuring Point	Measuring Equipment	Condition
TP201 (CH1) TP143 (GND)	Oscilloscope	Playback
	Input Signal / Alignment Tape	
	(WR5-5CSP): For operation check Audio input: No signal	
ADJ. Location	**ADJ. / Check Value**	
VR201		

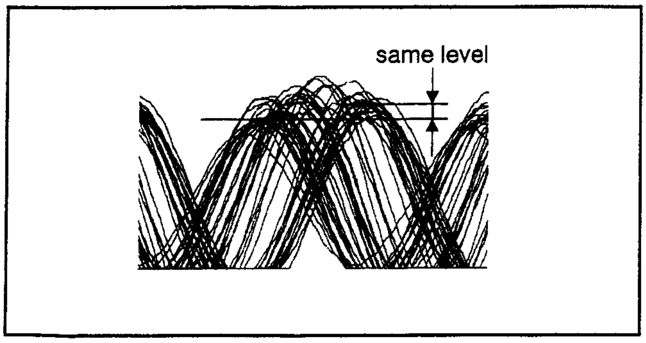
Preparation:

- POWER switch: "PLAYER"

Adjusting / Checking method:

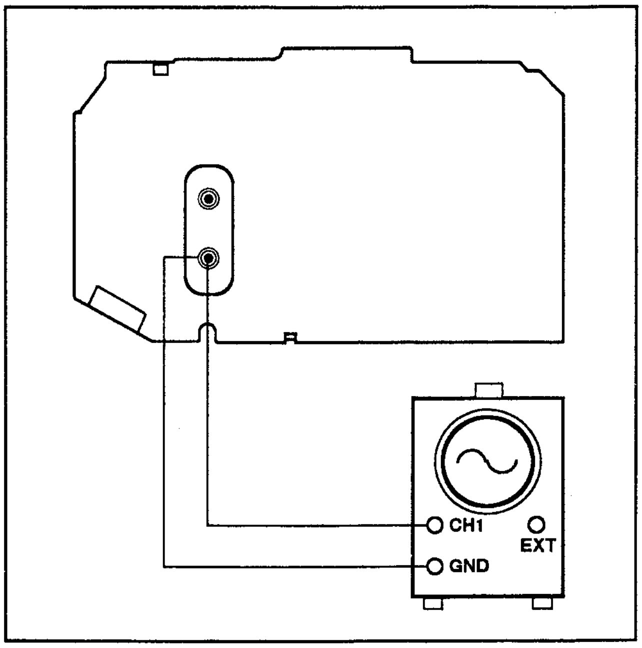
1. Set the oscilloscope to AC 50 mV/div, 0.5μsec/div.
2. Adjust with VR201 so that playback FM waveform has the same amplitude in high frequency range and low frequency range.

- Expand sweep of the time base to 0.1 μsec/div.



2. Deviation Check

[Connection]



[Adjustment / Check]

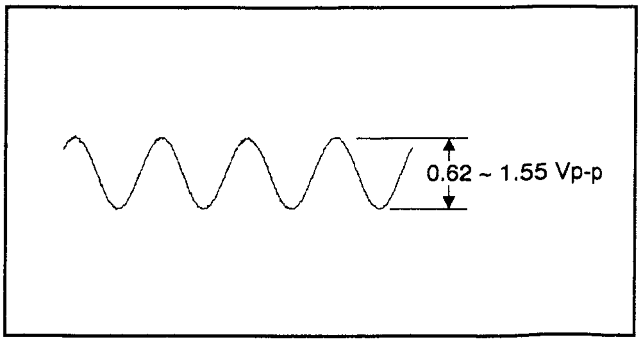
Measuring Point	Measuring Equipment	Condition
Audio output terminal	Audio level meter	Playback
	Input Signal / Alignment Tape	
	(WR5-5CSP): For operation check	
ADJ. Location	**ADJ. / Check Value**	
	0.62 ~ 1.55 Vp-p	

Preparation:

- POWER switch: "PLAYER"

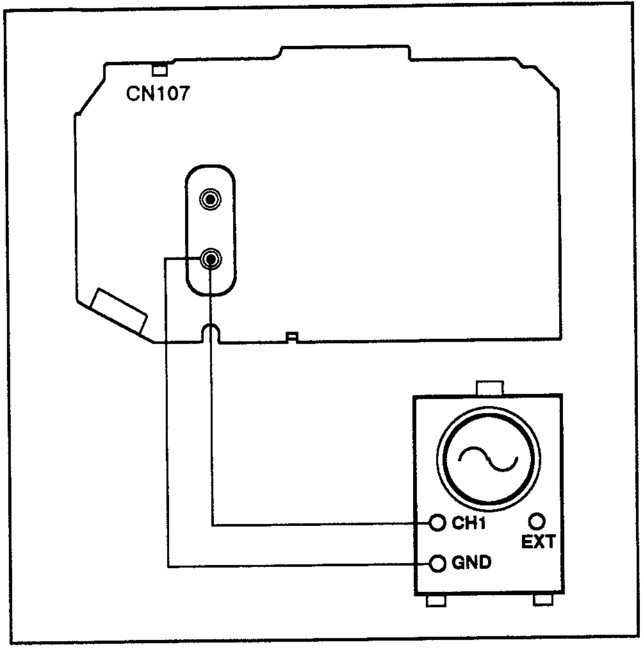
Adjusting / Checking method:

1. Confirm that the audio output level is 0.62 ~ 1.55 Vp-p.



3. Overall Level Check

[Connection]



[Adjustment / Check]

Measuring Point	Measuring Equipment	Condition
Audio output terminal	Audio level meter MP type tape	Record and playback (SP)
	Input Signal / Alignment Tape	
	MIC input (CN107①): 1 kHz, −57.8 dBs	
ADJ. Location	**ADJ. / Check Value**	
	0.62 ~ 1.55 Vp-p	

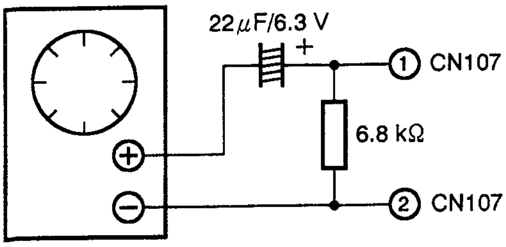
Preparation:

- Stand-by switch: "READY"
- POWER switch: "CAMERA" and "PLAYER"

Adjusting / Checking method:

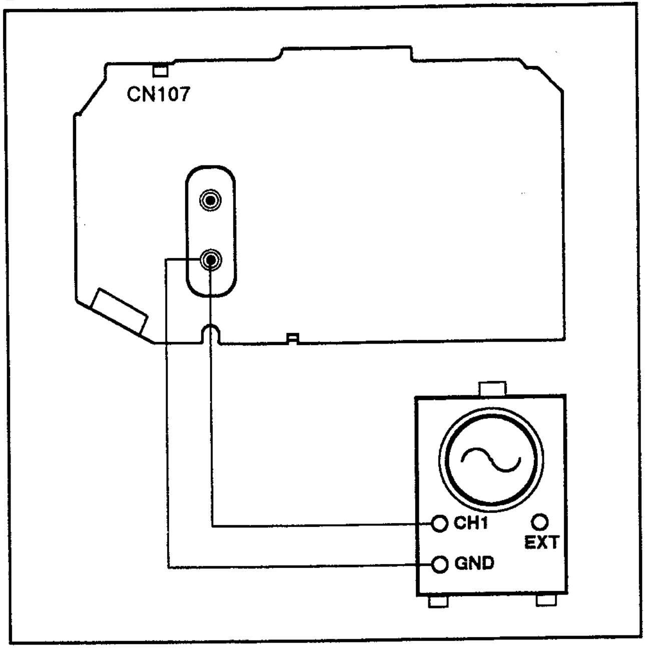
1. Record.
2. Play back the recorded portion.
3. Confirm that the audio output level is 0.62 ~ 1.55 Vp-p.

- Disconnect the microphone and connect the audio oscillator to CN107 ① and ②.



4. Overall S / N Check

[Connection]



[Adjustment / Check]

Measuring Point	Measuring Equipment	Condition
Audio output terminal	Audio level meter MP type tape	Record and playback (SP)
	Input Signal / Alignment Tape	
	Short-circuited at the MIC input end (CN107①): No signal	
ADJ. Location	**ADJ. / Check Value**	

Preparation:

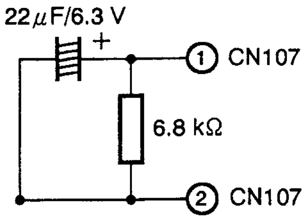
- Stand-by switch: "READY"
- POWER switch: "CAMERA" and "PLAYER"

Adjusting / Checking method:

1. Record then play back the recorded portion.
2. Confirm that (playback level in 3. Overall Level Check) dBs - (playback level in this step) dBs is over 45 dB (JIS A audio corrections).

- Since the audio input level is extreme low, be careful of noise such as inductive hum, etc.

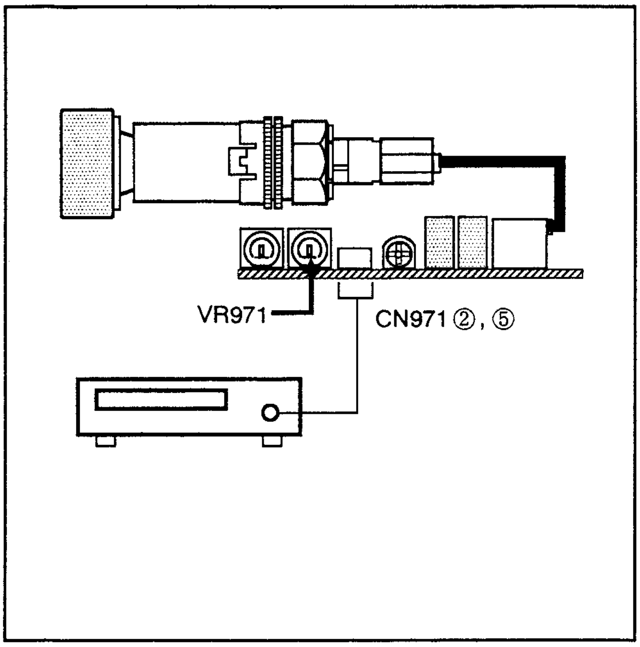
- Short the two sides as illustrated.



2-9. VIEWFINDER CIRCUIT

1. Horizontal Oscillation Frequency Adjustment

[Adjusting Location]



[Adjustment / Check]

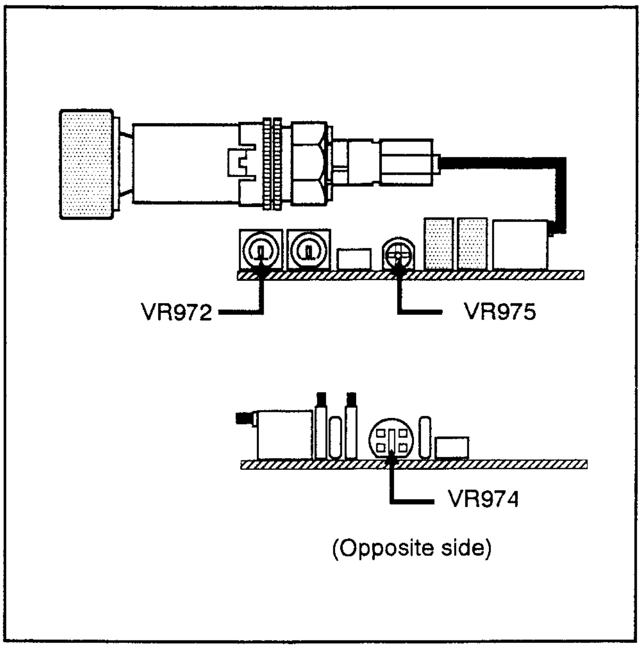
Measuring Point	Measuring Equipment	Condition
CN971 ⑤, ② (GND)	Frequency counter	Stop
	Input Signal / Alignment Tape	
	No signal	
ADJ. Location	**ADJ. / Check Value**	
VR971	15,600 ± 100 Hz	

Preparation:
- POWER switch: "PLAYER"

Adjustment:
1. Adjust to 15,600 ± 100 Hz with VR971.

2. Viewfinder Provisional Adjustment

[Adjusting Location]

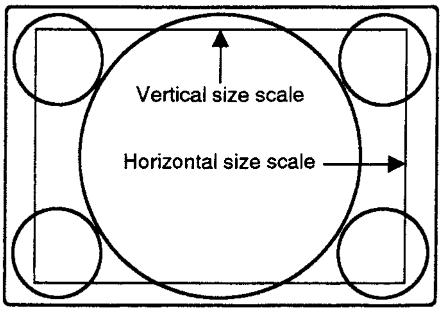


[Adjustment / Check]

Measuring Point	Measuring Equipment	Condition
Viewfinder		Playback
	Input Signal / Alignment Tape	
	(WR5-5CSP): For operation check, monoscope portion	
ADJ. Location	**ADJ. / Check Value**	
VR972, VR974 VR975		

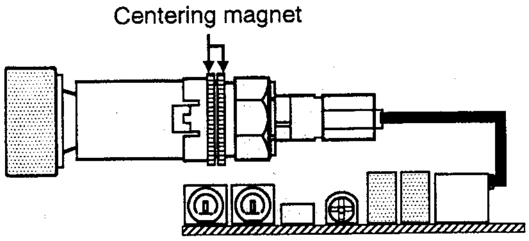
Preparation:
- POWER switch: "PLAYER"

Adjustment:
1. Turn VR975 (BRIGHT) to obtain adequate brightness.
2. Turn VR972 (V SIZE) to adjust picture size.
3. Adjust VR975 (BRIGHT) and VR974 (FOCUS) so that a proper picture display is obtained.



3. Centering Adjustment

[Adjusting Location]


Centering magnet

[Adjustment / Check]

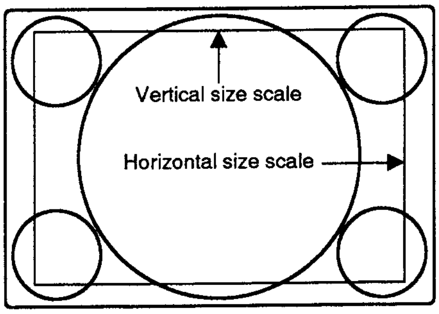
Measuring Point	**Measuring Equipment**	**Condition**
Viewfinder		Playback
	Input Signal / Alignment Tape	
	(WR5-5CSP): For operation check, monoscope portion	
ADJ. Location	**ADJ. / Check Value**	

Preparation:

- POWER switch: "PLAYER"

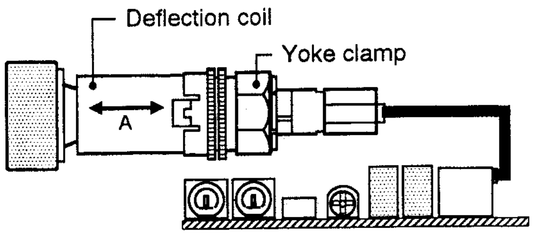
Adjustment:

1. Turn the centering magnet to center the picture.
2. Fix the centering magnet with lacquer.


Vertical size scale
Horizontal size scale

4. Horizontal Size & Viewfinder Slant Adjustment

[Adjusting Location]


Deflection coil
Yoke clamp
A

[Adjustment / Check]

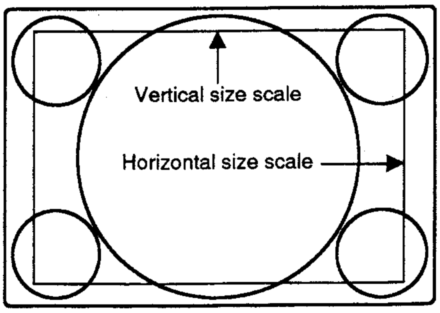
Measuring Point	**Measuring Equipment**	**Condition**
Viewfinder		Playback
	Input Signal / Alignment Tape	
	(WR5-5CSP): For operation check monoscope portion	
ADJ. Location	**ADJ. / Check Value**	

Preparation:

- POWER switch: "PLAYER"

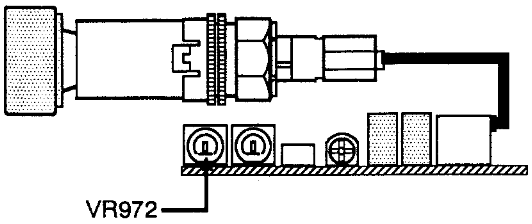
Adjustment:

1. Loosen the yoke clamp, then move the deflection coil in the direction of arrow A, and adjust the horizontal size within 87.5 to 92.5 on the horizontal size scale of the monoscope signal.
2. Turn the deflection coil so that picture slant is within 0 ± 1.5 °. (The difference between right and left should be within 0.5 on the vertical size scale of the monoscope signal).
3. Fix the deflection coil with the yoke clamp.


Vertical size scale
Horizontal size scale

5. Vertical Size Adjustment

[Adjusting Location]

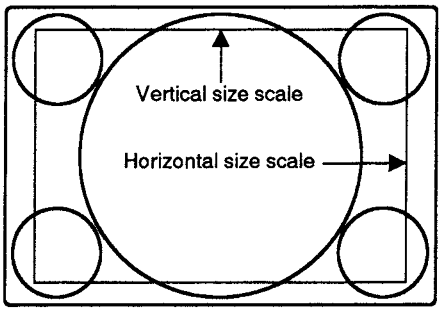


[Adjustment / Check]

Measuring Point	Measuring Equipment	Condition
Viewfinder		Playback
	Input Signal / Alignment Tape	
	(WR5-5CSP): For operation check, monoscope portion	
ADJ. Location	**ADJ. / Check Value**	
VR972		

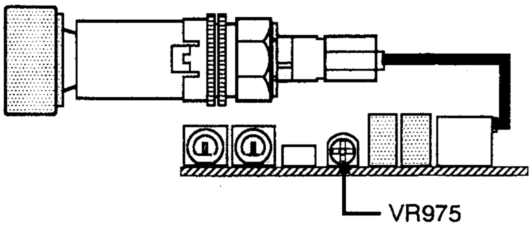
Preparation:
- POWER switch: "PLAYER"

Adjustment:
1. Turn and adjust VR972 within 87.5 to 92.5 on the vertical size scale of the monoscope signal.



6. Brightness Adjustment

[Adjusting Location]



[Adjustment / Check]

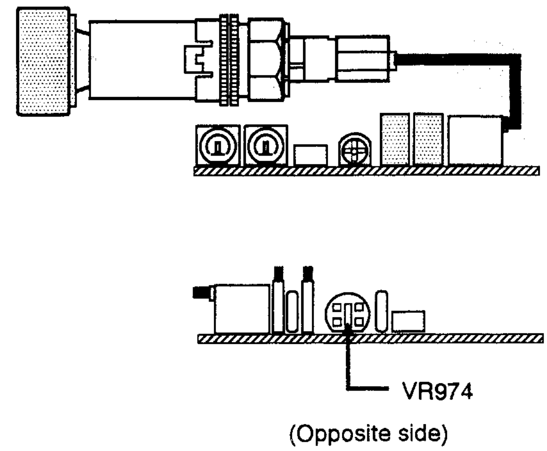
Measuring Point	Measuring Equipment	Condition
Viewfinder		Playback
	Input Signal / Alignment Tape	
	(WR5-5CSP): For operation check, monoscope portion	
ADJ. Location	**ADJ. / Check Value**	
VR975		

Preparation:
- POWER switch: "PLAYER"

Adjustment:
1. Adjust to adequate brightness with VR975.

7. Focus Adjustment

[Adjusting Location]


VR974
(Opposite side)

[Adjustment / Check]

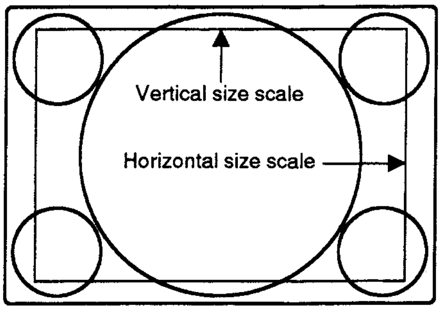
Measuring Point	Measuring Equipment	Condition
Viewfinder		Playback
	Input Signal / Alignment Tape	
	(WR5-5CSP): For operation check, monoscope portion	
ADJ. Location	**ADJ. / Check Value**	
VR974		

Preparation:

- POWER switch: "PLAYER"

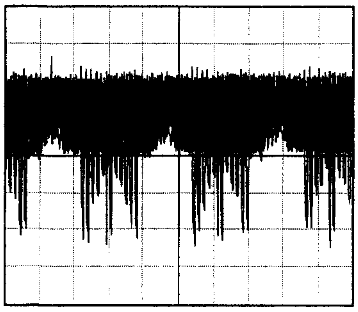
Adjustment:

1. Adjust VR974 so as to optimize resolution of the monoscope pattern.

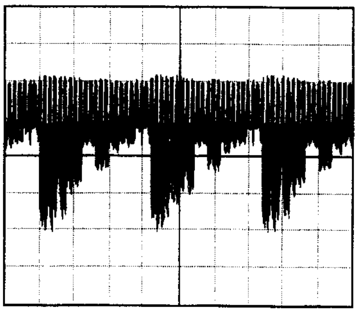

Vertical size scale
Horizontal size scale

6. WAVEFORM

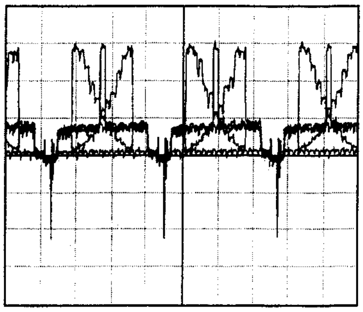
6-1. CAMERA CIRCUIT (CA1 BOARD)



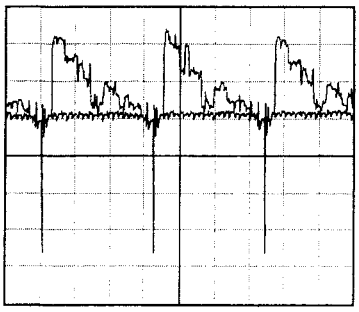
① *IC913-1 500mVp-p*
100mV/20μs/div.
[Gray Scale Chart]



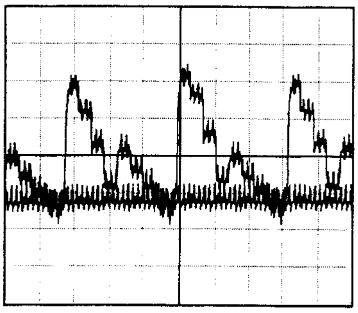
① *IC913-1 400mVp-p*
100mV/20μs/div.
[Color Bar Chart]



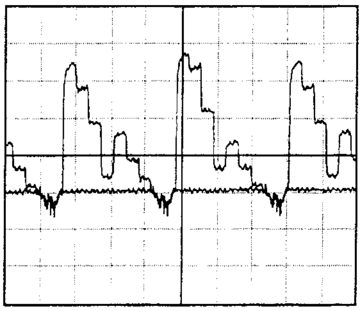
② *IC913-7 600mVp-p*
200mV/20μs/div.
[Gray Scale Chart]



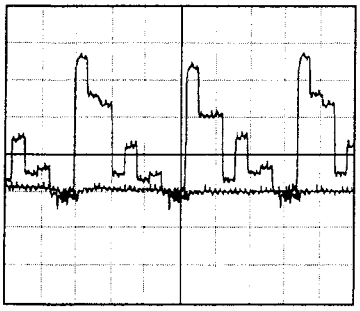
② *IC913-7 470mVp-p*
200mV/20μs/div.
[Color Bar Chart]



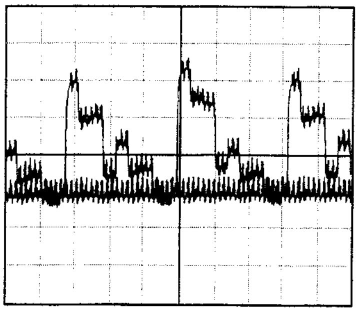
③ *IC921-2 380mVp-p*
100mV/20μs/div.



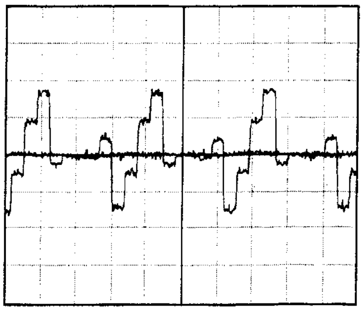
④ *IC921-7 180mVp-p*
50mV/20μs/div.



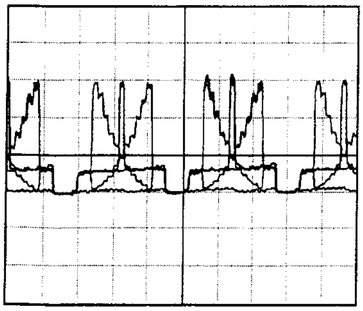
⑤ *IC921-9 180mVp-p*
50mV/20μs/div.



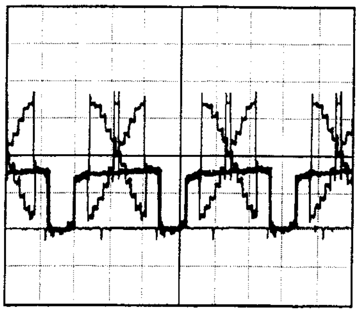
⑥ *IC921-16 380mVp-p*
100mV/20μs/div.



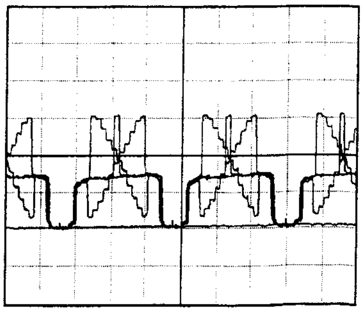
⑦ *IC922-1 360mVp-p*
100mV/20μs/div.



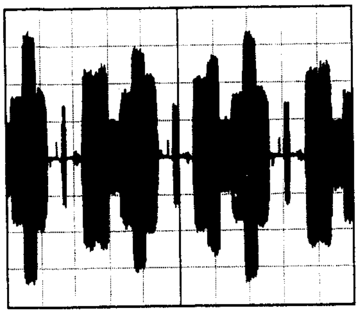
⑧ *IC922-4 610mVp-p*
200mV/20μs/div.



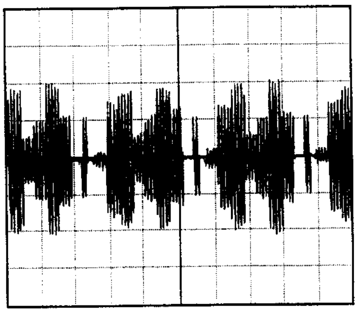
⑨ *IC922-9 730mVp-p*
200mV/20μs/div.
[Gray Scale Chart]



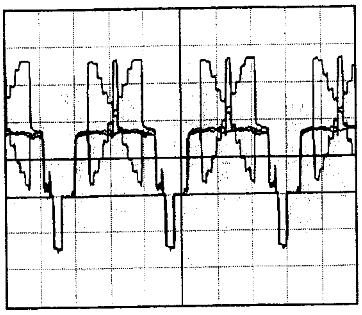
⑩ *IC922-16 300mVp-p*
100mV/20μs/div.



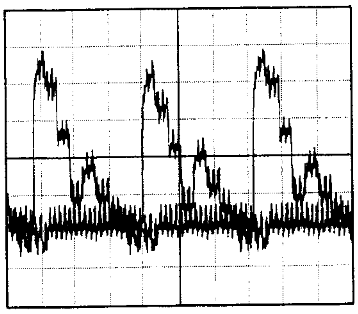
⑪ IC922-18 680mVp-p
100mV/20μs/div.



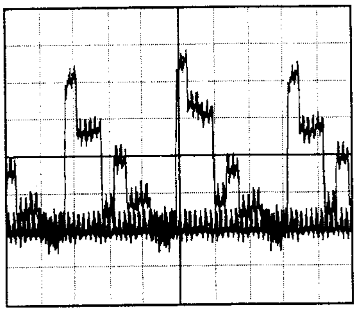
⑫ IC922-20 400mVp-p
100mV/20μs/div.



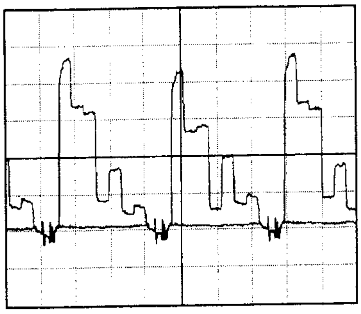
⑬ IC922-28 960mVp-p
200mV/20μs/div.



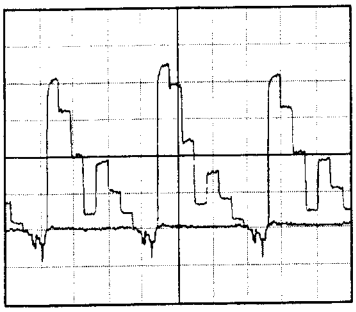
⑭ IC922-48 490mVp-p
100mV/20μs/div.



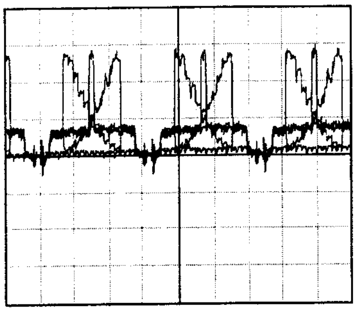
⑮ IC922-50 470mVp-p
100mV/20μs/div.



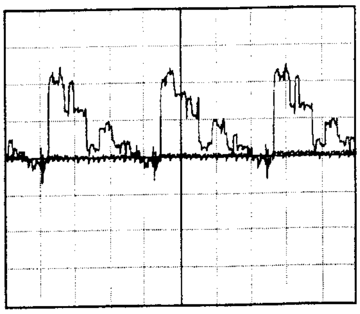
⑯ IC922-54 430mVp-p
100mV/20μs/div.



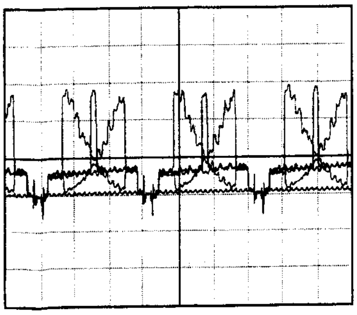
⑰ IC922-56 450mVp-p
100mV/20μs/div.



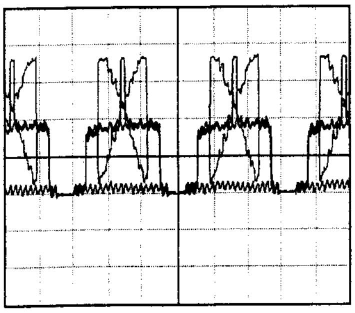
⑱ IC922-65 570mVp-p
200mV/20μs/div.
[Gray Scale Chart]



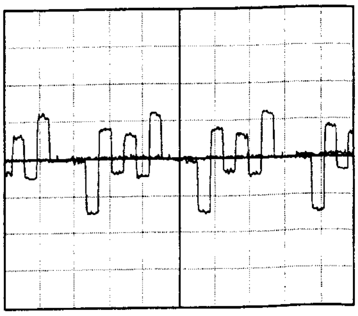
⑱ IC922-65 490mVp-p
200mV/20μs/div.
[Color Bar Chart]



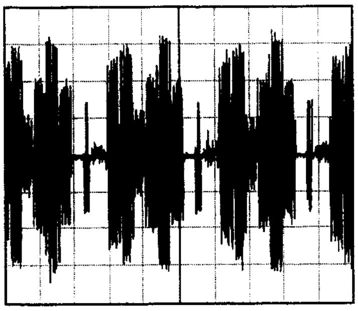
⑲ IC922-68 560mVp-p
200mV/20μs/div.



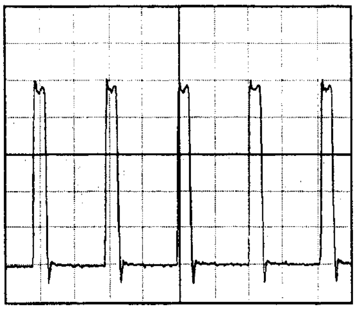
⑳ IC922-75 670mVp-p
200mV/20μs/div.



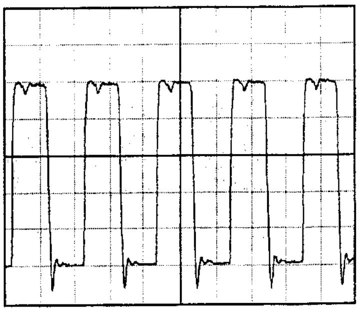
㉑ IC922-79 560mVp-p
200mV/20μs/div.



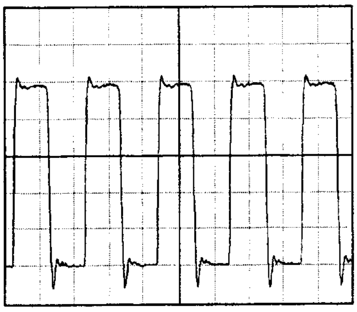
㉒ IC924-11 1.2Vp-p
200mV/20μs/div.



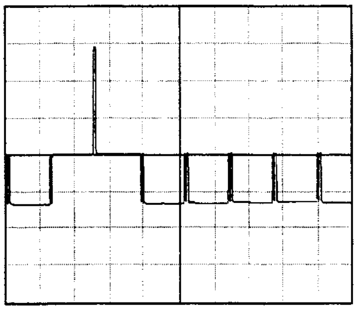
㉓ IC911-2 4.9Vp-p
1.0V/50ns/div.



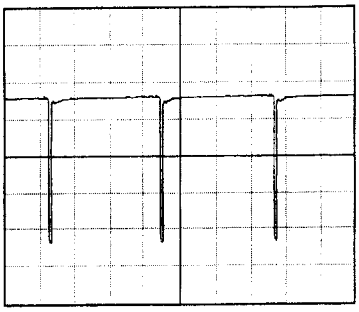
㉔ IC911-7 5.0Vp-p
1.0V/50ns/div.



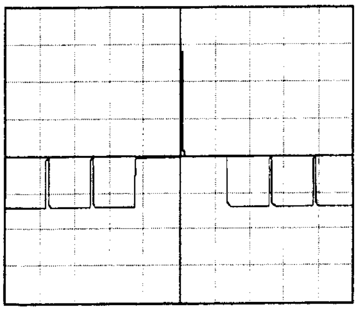
㉕ IC911-8 5.0Vp-p
1.0V/50ns/div.



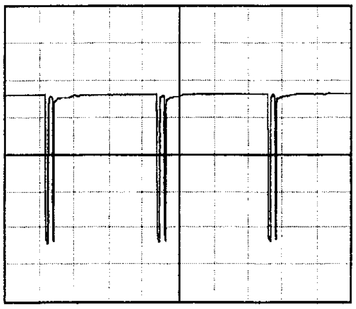
㉖ IC911-12 22.0Vp-p
5.0V/20μs/div.



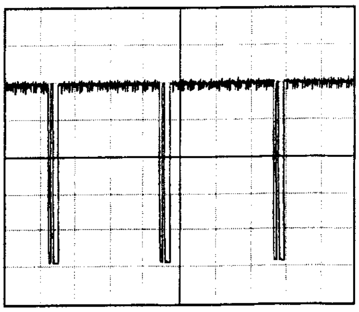
㉗ IC911-13 8.0Vp-p
2.0V/20μs/div.



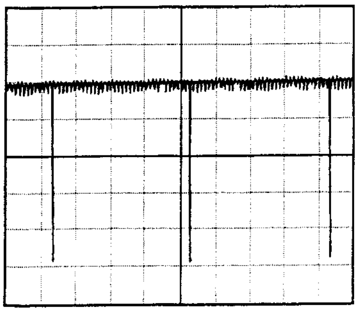
㉘ IC911-14 22.0Vp-p
5.0V/20μs/div.



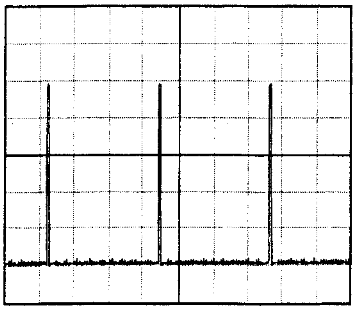
㉙ IC911-15 8.0Vp-p
2.0V/20μs/div.



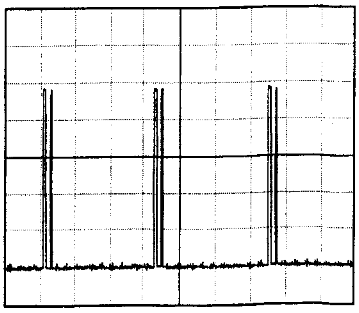
㉚ IC912-7 4.9Vp-p
1.0V/20μs/div.



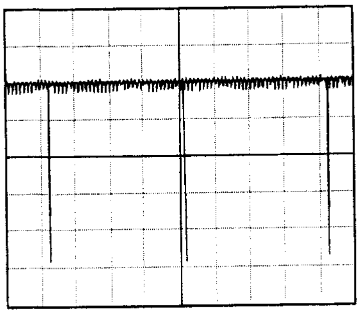
㉛ IC912-8 4.8Vp-p
1.0V/5ms/div.



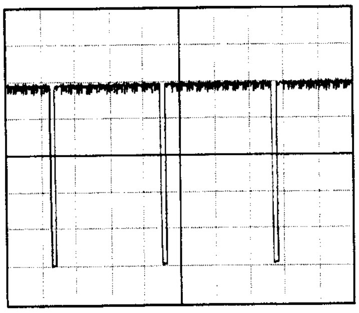
㉜ IC912-9 4.8Vp-p
1.0V/20μs/div.



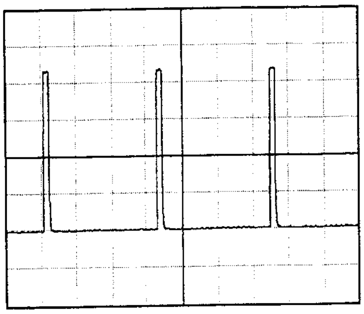
㉝ IC912-12 4.9Vp-p
1.0V/20μs/div.



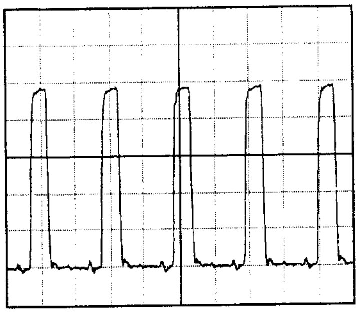
㉞ *IC912-13 4.8Vp-p*
1.0V/5ms/div.



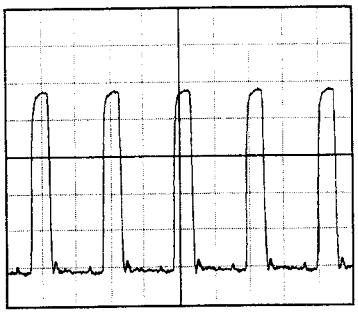
㉟ *IC912-14 4.9Vp-p*
1.0V/20µs/div.



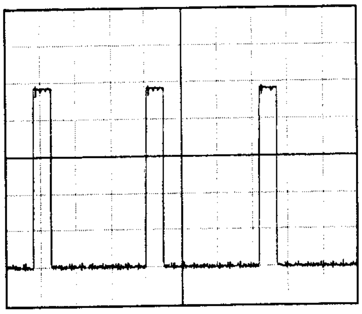
㊱ *IC913-3 4.4Vp-p*
1.0V/20µs/div.



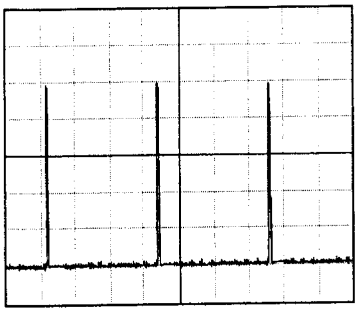
㊲ *IC913-4 4.9Vp-p*
1.0V/50ns/div.



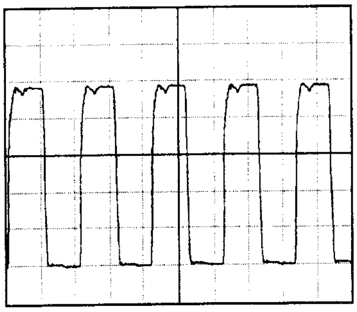
㊳ *IC913-5 4.9Vp-p*
1.0V/50ns/div.



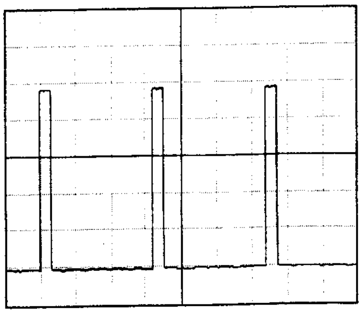
㊴ *IC914-9 4.9Vp-p*
1.0V/20µs/div.



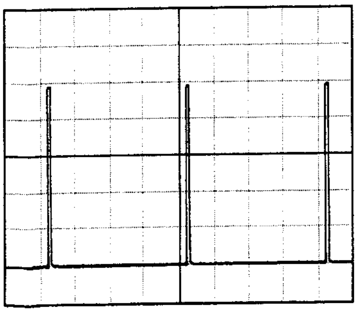
㊵ *IC914-10 4.9Vp-p*
1.0V/20µs/div.



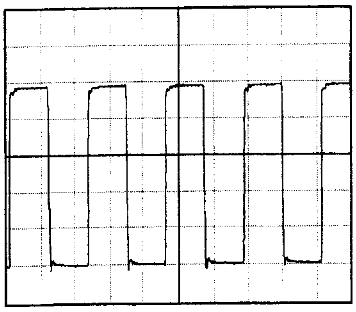
㊶ *IC914-13 4.9Vp-p*
1.0V/50ns/div.



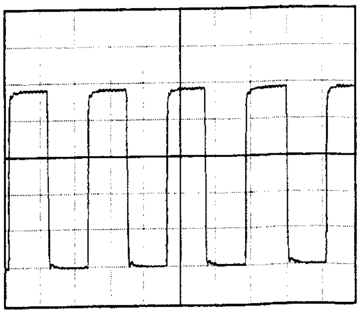
㊷ *IC914-14 4.9Vp-p*
1.0V/20µs/div.



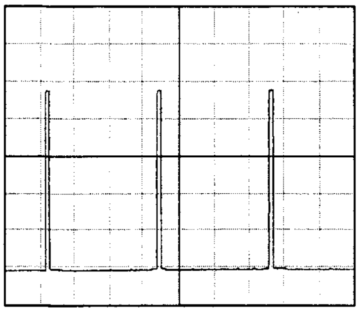
㊸ *IC914-15 4.9Vp-p*
1.0V/5ms/div.



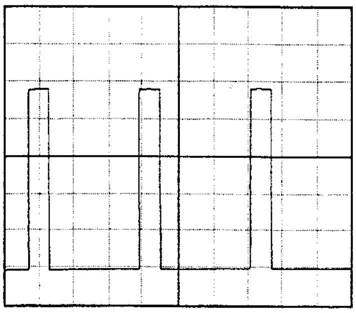
㊹ *IC916-16 4.9Vp-p*
1.0V/100ns/div.



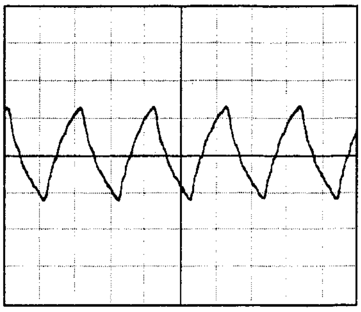
㊺ *IC916-17 4.9Vp-p*
1.0V/100ns/div.



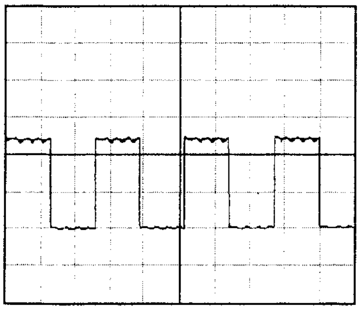
㊻ IC916-28 4.9Vp-p
1.0V/20μs/div.



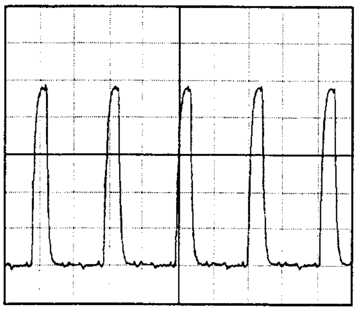
㊼ IC916-29 4.9Vp-p
1.0V/20μs/div.



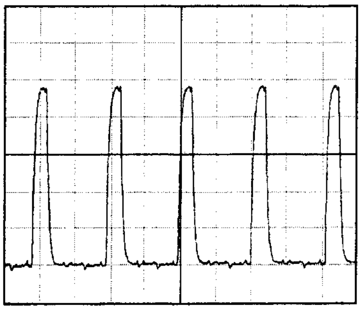
㊽ IC921-8 510mVp-p
200mV/50ns/div.



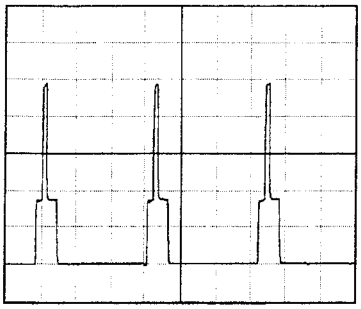
㊾ IC922-35 4.9Vp-p
2.0V/50μs/div.



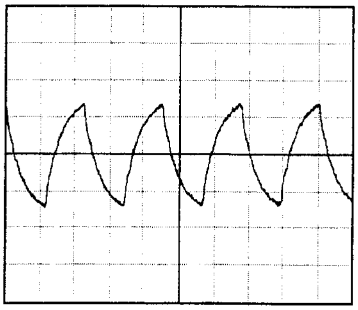
㊿ IC922-61 4.8Vp-p
1.0V/100ns/div.



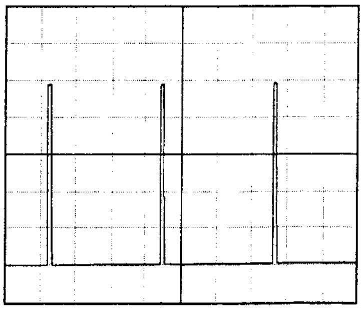
(51) IC922-62 4.8Vp-p
1.0V/100ns/div.



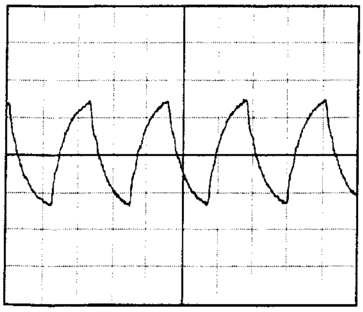
(52) IC922-73 4.9Vp-p
1.0V/20μs/div.



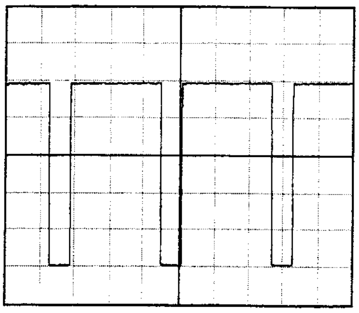
(53) IC924-5 560mVp-p
200mV/100ns/div.



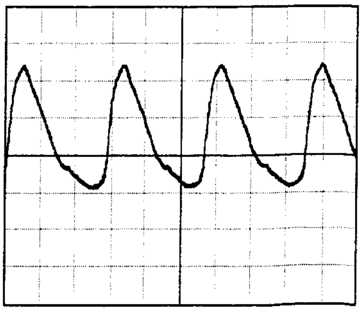
(54) IC924-18 4.9Vp-p
1.0V/20μs/div.



(55) IC924-20 560mVp-p
200mV/100ns/div.

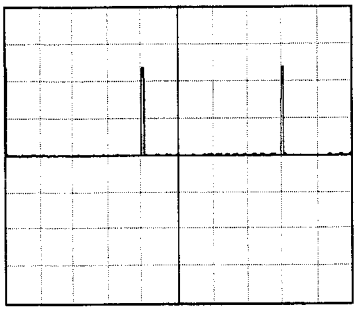


(56) CN914-13 4.9Vp-p
1.0V/20μs/div.

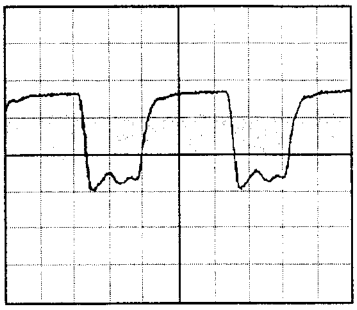


(57) CN914-12 1.7Vp-p
500mV/20ns/div.

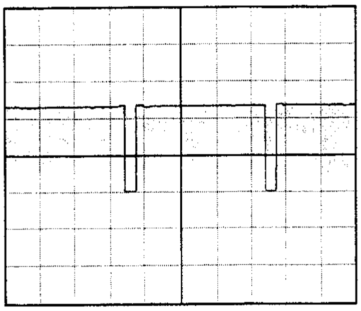
(TC1 BOARD)



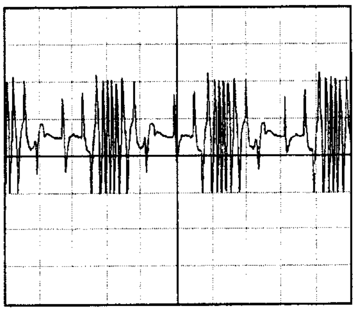
① *IC931-7 4.97Vp-p*
2.0V/5ms/div.



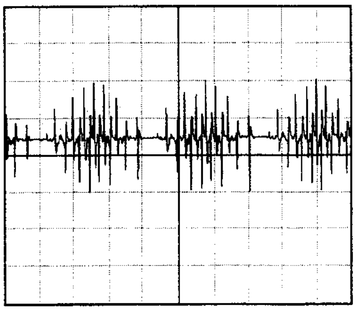
② *IC931-27 5.47Vp-p*
2.0V/20ns/div.



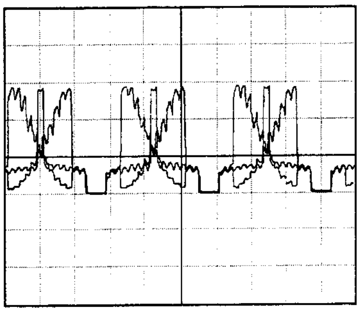
③ *IC931-30 4.81Vp-p*
2.0V/5ms/div.



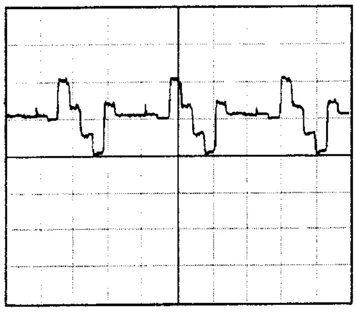
④ *IC931-34 3.25Vp-p*
1.0V/20μs/div.



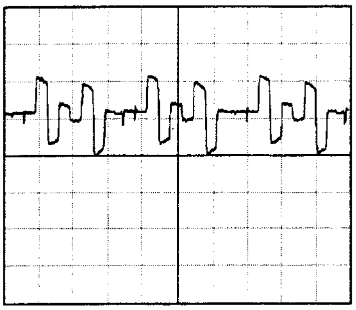
⑤ *IC931-35 1.5Vp-p*
0.5V/20μs/div.



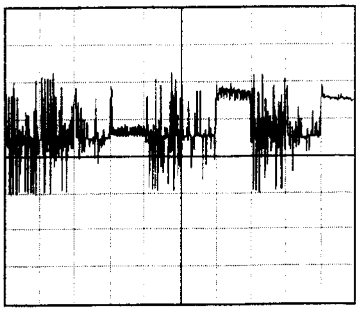
⑥ *IC931-40 1.44Vp-p*
0.5V/20μs/div.
[Gray Scale Chart]



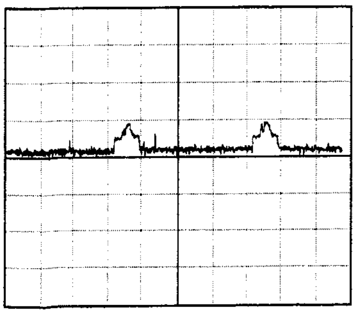
⑦ *IC931-43 2.12Vp-p*
1.0V/20μs/div.
[Color Bar Chart]



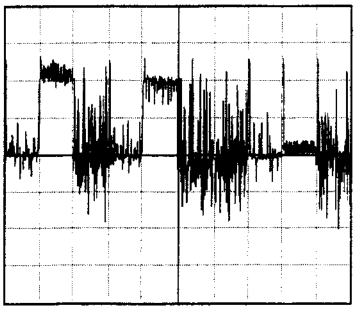
⑧ *IC931-45 2.15Vp-p*
1.0V/20μs/div.
[Color Bar Chart]



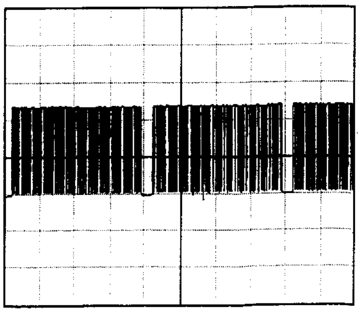
⑨ *IC931-50 3.33Vp-p*
1.0V/20ms/div.



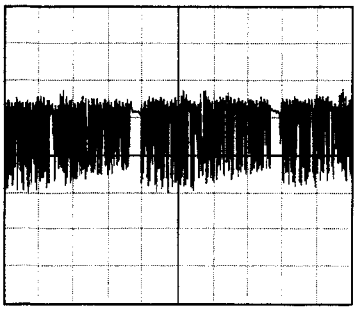
⑩ *IC931-51 43.5mVp-p*
50mV/5ms/div.



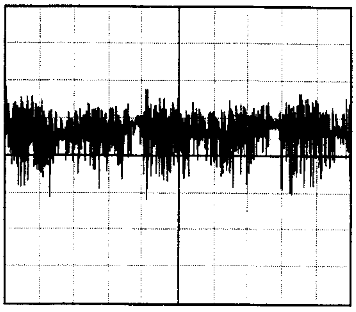
⑪ *IC931-52 2.26Vp-p*
0.5V/20ms/div.



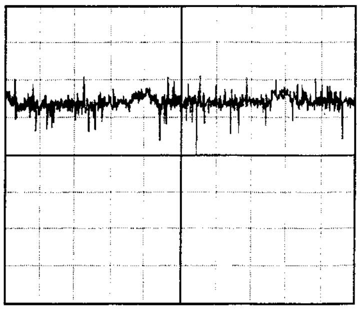
⑫ *IC931-55 4.8Vp-p*
2.0V/5ms/div.



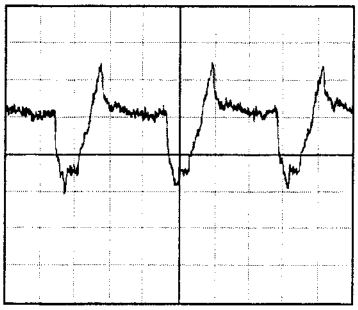
⑬ Q9302-4 277mVp-p
0.1V/5ms/div.



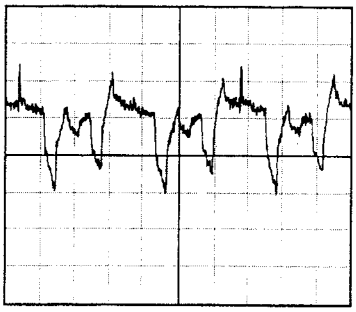
⑭ Q9305-2 58.2mVp-p
20mV/5ms/div.



⑮ Q9306-2 42.4mVp-p
20mV/5ms/div.

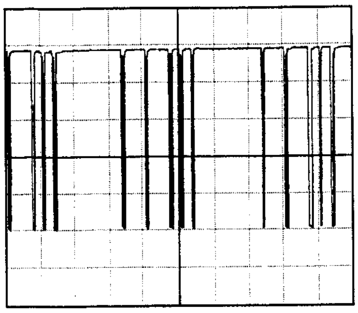


⑯ Q9331-2 70.0mVp-p
20mV/20μs/div.
[Color Bar Chart]

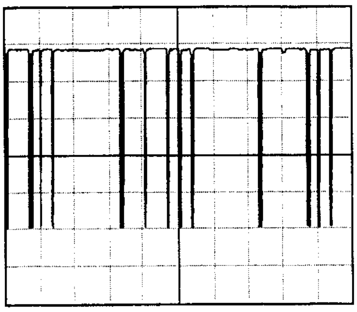


⑰ Q9332-2 69.8mVp-p
20mV/20μs/div.
[Color Bar Chart]

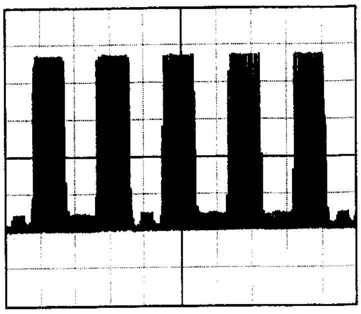
6-2. SERVO/SYSTEM CONTROL CIRCUIT



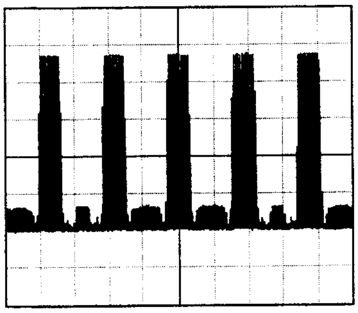
① *IC351-82 4.8Vp-p*
1.0V/5ms/div.



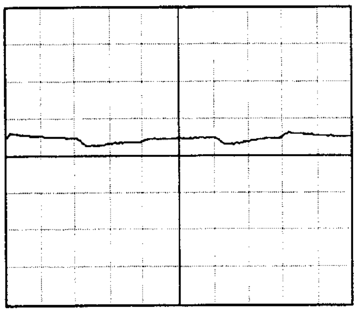
② *IC351-84 4.8Vp-p*
1.0V/5ms/div.



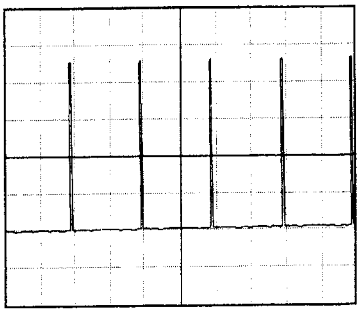
③ *IC351-98 4.7Vp-p*
1.0V/500ms/div.
[REC]



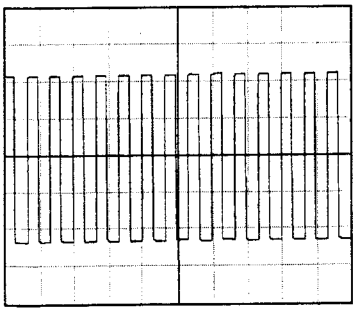
④ *IC351-99 4.73Vp-p*
1.0V/500ms/div.
[REC]



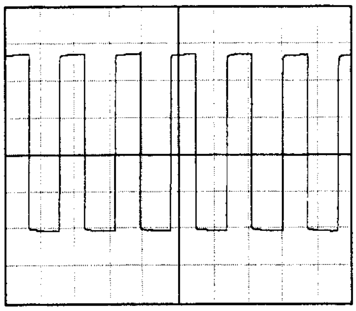
⑤ *IC351-108 310mVp-p*
1.0V/5ms/div.
[PLAY]



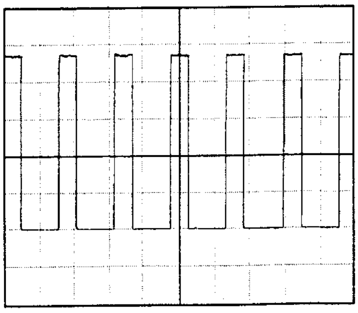
⑥ *IC351-120 4.57Vp-p*
1.0V/20ms/div.
[REC/PLAY]



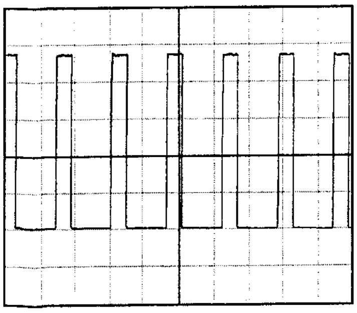
⑦ *IC351-121 4.54Vp-p*
1.0V/5ms/div.
[REC/PLAY]



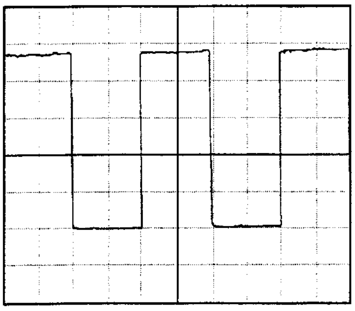
⑧ *IC351-122 4.8Vp-p*
1.0V/500μs/div.
[REC/PLAY]



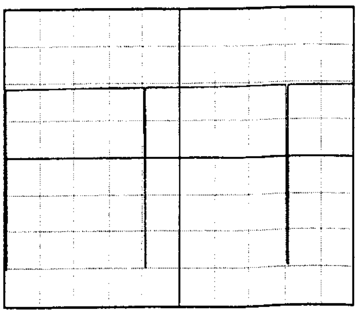
⑨ *IC351-2 4.72Vp-p*
1.0V/10μs/div.
[REC/PLAY]



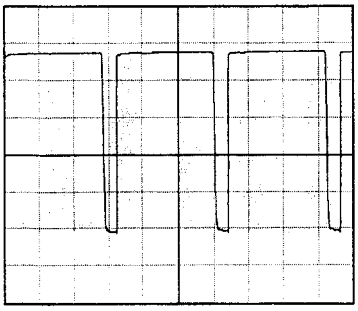
⑩ *IC351-3 4.8Vp-p*
1.0V/10μs/div.
[REC/PLAY]



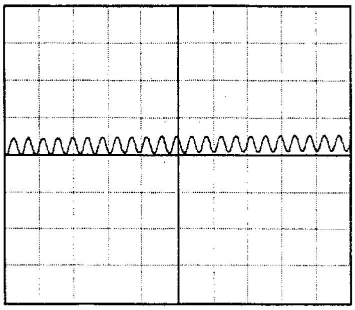
⑪ *IC351-14 4.76Vp-p*
1.0V/10ms/div.
[REC/PLAY]



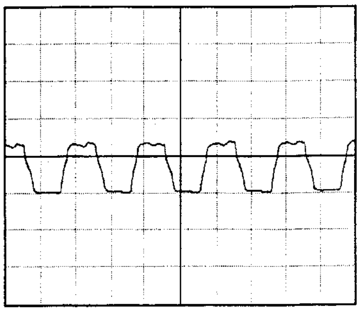
⑫ *IC321-18 4.88Vp-p*
1.0V/5ms/div.



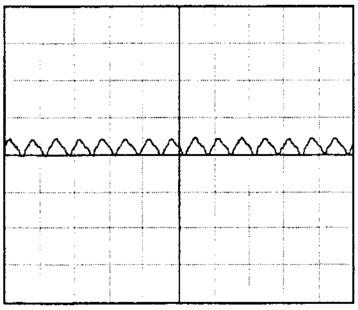
⑬ IC321-19 4.9Vp-p
1.0V/20μs/div.



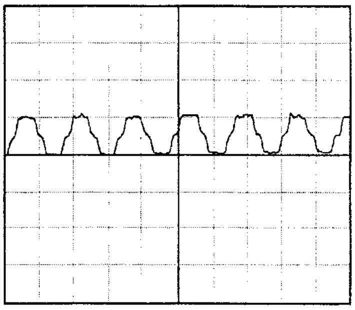
⑭ IC351-106 600mVp-p
1.0V/20μs/div.
[REC]



⑮ IC381-1•2•36 1.28Vp-p
1.0V/5ms/div.
[REC/PLAY]

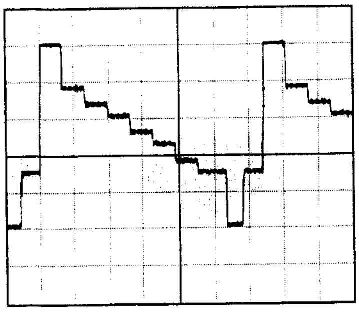


⑯ IC381-30 430mVp-p
1.0V/5ms/div.
[REC/PLAY]

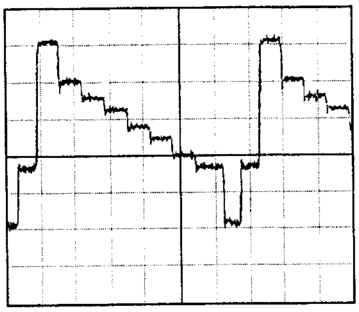


⑰ IC361-3•27•28 1.0Vp-p
1.0V/50ms/div.
[REC/PLAY]

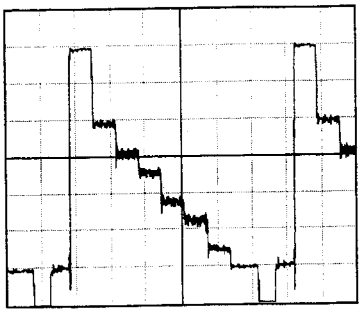
6-3. VIDEO CIRCUIT



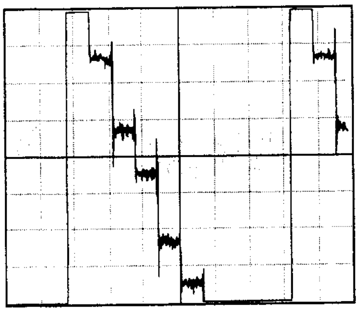
① TP103 500mVp-p
0.1V/10μs/div.
[REC]



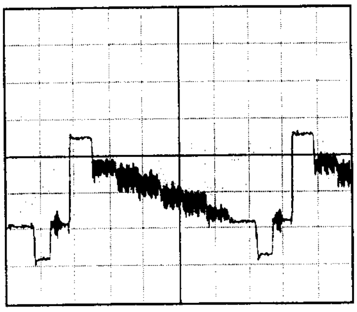
① TP103 500mVp-p
0.1V/10μs/div.
[PLAY]



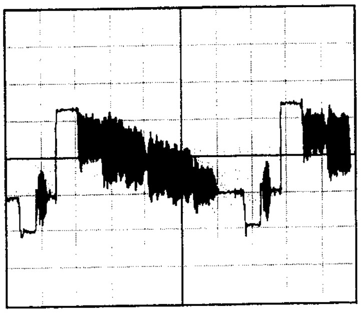
② TP101 11.8mVp-p
50mV/10μs/div.



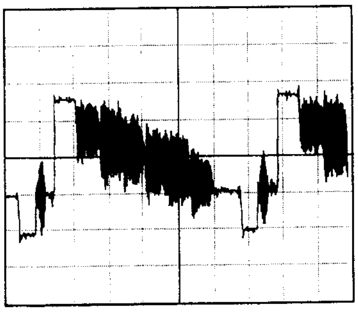
③ TP102 10.8mVp-p
50mV/10μs/div.



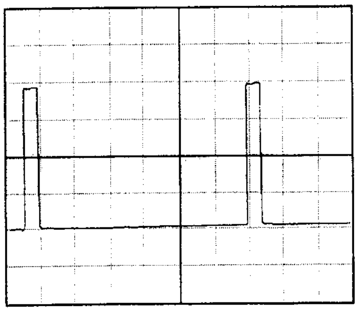
④ IC101-26 330mVp-p
0.1V/10μs/div.
[PLAY]



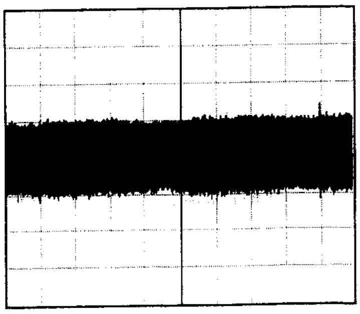
⑤ IC101-22 330mVp-p
0.1V/10μs/div.
[PLAY]



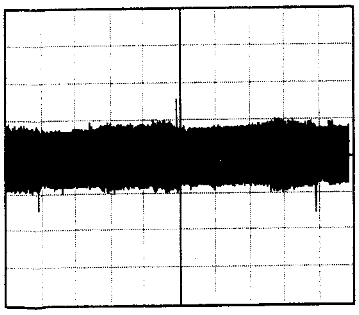
⑥ IC101-20 365mVp-p
0.1V/10μs/div.
[PLAY]



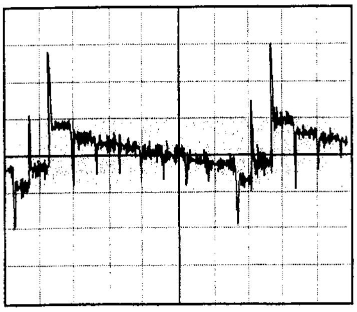
⑦ TP105 4.0Vp-p
1.0V/10μs/div.
[REC]



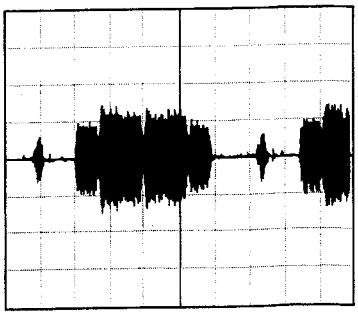
⑧ IC101-32 350mVp-p
0.2V/5ms/div.
[PLAY]



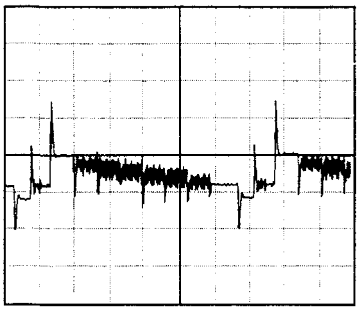
⑨ IC101-30 160mVp-p
0.1V/5ms/div.
[PLAY]



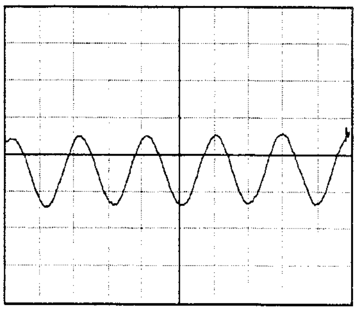
⑩ IC101-44 500mVp-p
0.1V/10μs/div.
[PLAY]



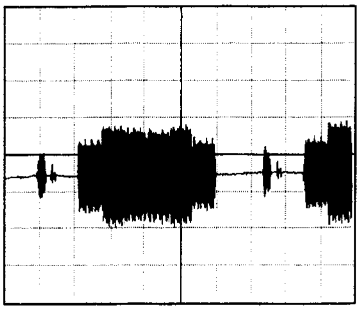
⑪ IC101-62 230mVp-p
0.1V/10μs/div.
[PLAY]



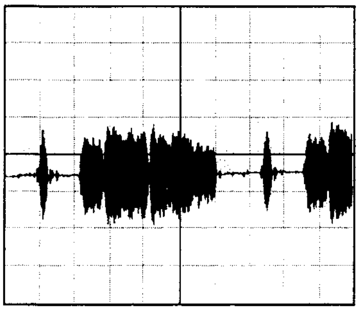
⑫ *TP104 700mVp-p*
0.2V/10μs/div.
[REC]



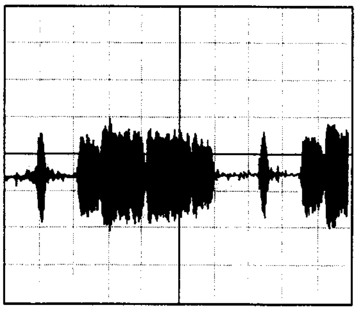
⑬ *IC121-34 90mVp-p*
50mV/100ns/div.
[REC]



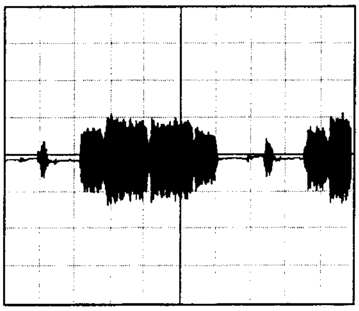
⑭ *IC121-46 130mVp-p*
50mV/10μs/div.
[REC]



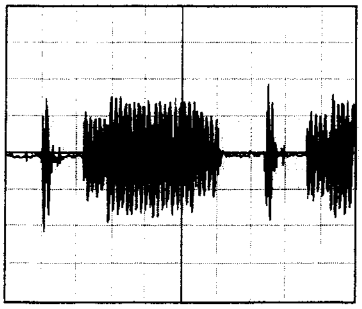
⑭ *IC121-46 260mVp-p*
0.1V/10μs/div.
[PLAY]



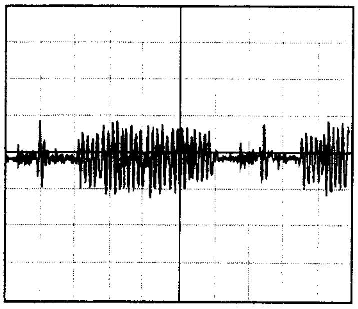
⑮ *IC101-60 260mVp-p*
0.1V/10μs/div.
[PLAY]



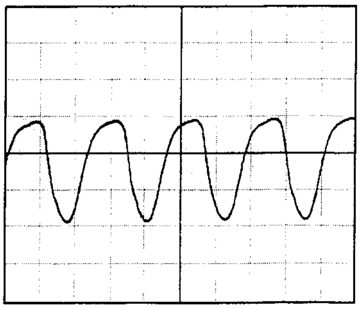
⑯ *IC121-36 400mVp-p*
0.2V/10μs/div.
[PLAY]



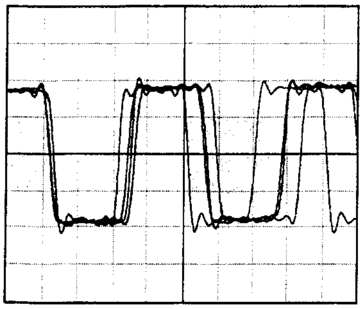
⑰ *IC121-39 750mVp-p*
0.2V/10μs/div.
[REC]



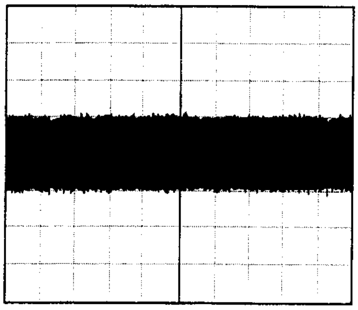
⑱ *IC121-48 100mVp-p*
50mV/10μs/div.
[PLAY]



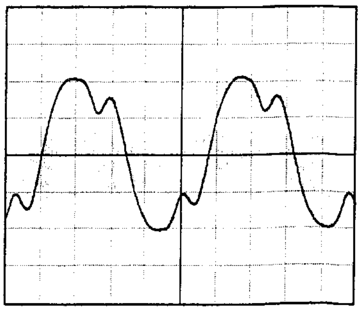
⑲ *IC121-6 550mVp-p*
0.2V/100ns/div.
[REC]



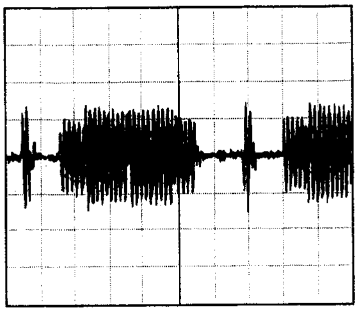
⑳ *IC101-34 360mVp-p*
0.1V/50ns/div.
[REC]



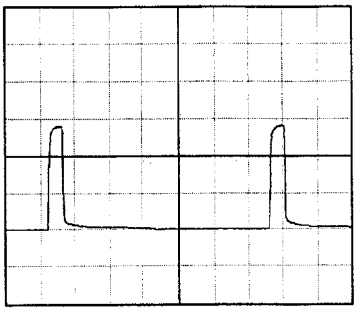
⑳ *IC101-34 400mVp-p*
0.2V/5ms/div.
[PLAY]



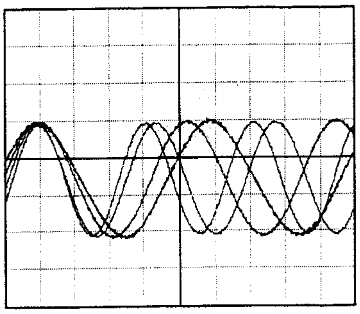
㉑ *TP131 210mVp-p*
50mV/50ns/div.
[REC]



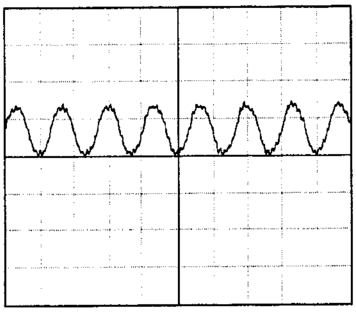
㉒ TP132 145mVp-p
50mV/10μs/div.
[REC]



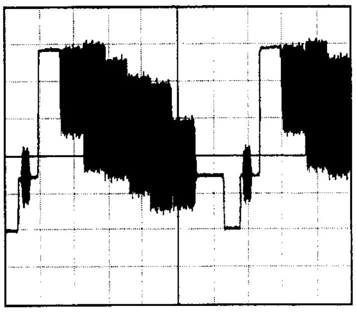
㉓ IC161-10 2.8Vp-p
1.0V/10μs/div.
[PLAY]



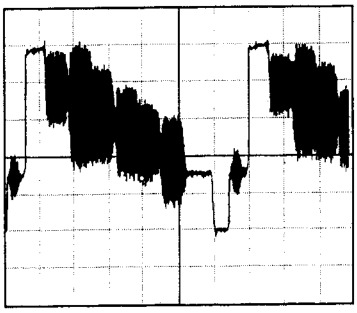
㉔ TP134 150mVp-p
50mV/2μs/div.
[REC]



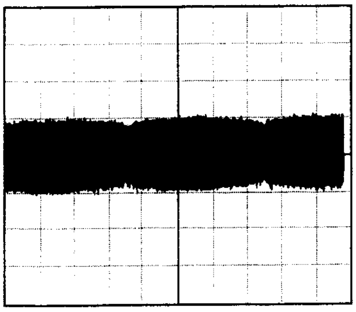
㉕ TP133 29.9mVp-p
20mV/500ns/div.
[REC]



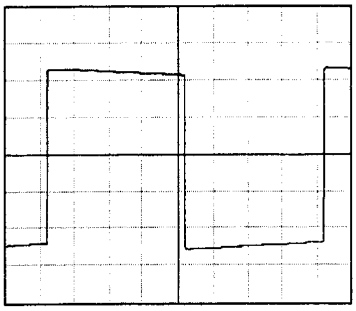
㉖ TP141 1.0Vp-p
0.2V/10μs/div.
[REC]



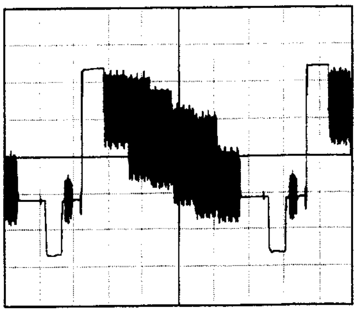
㉖ TP141 1.0Vp-p
0.2V/10μs/div.
[PLAY]



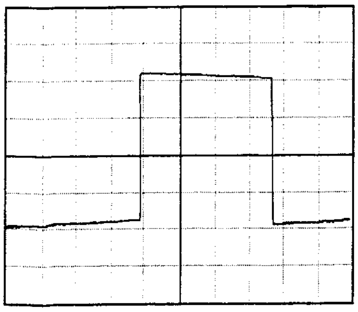
㉗ TP152 800mVp-p
0.5V/5ms/div.
[PLAY]



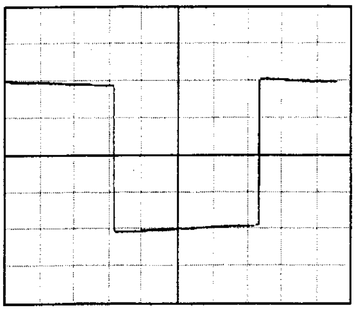
㉘ TP151 4.9Vp-p
1.0V/5ms/div.
[PLAY]



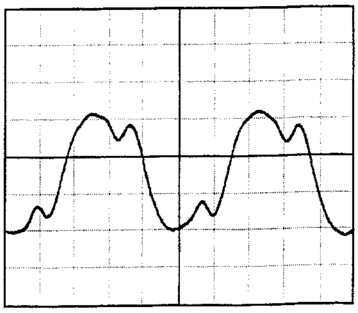
㉙ CN108-3 1.01Vp-p
0.2V/10μs/div.
[REC]



㉚ IC191-45 4.0Vp-p
1.0V/5ms/div.
[REC]

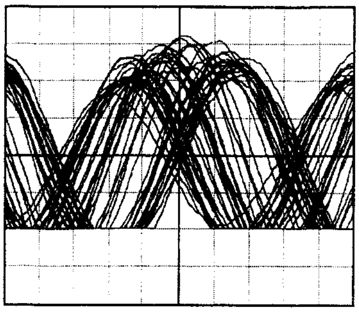


㉛ IC191-47 4.0Vp-p
1.0V/5ms/div.
[REC]

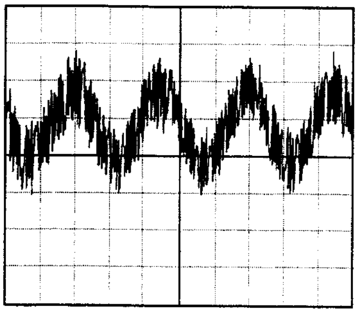


㉜ TP191 160mVp-p
50mV/50ns/div.
[REC]

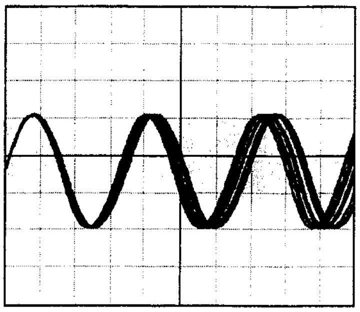
6-4. AUDIO CIRCUIT



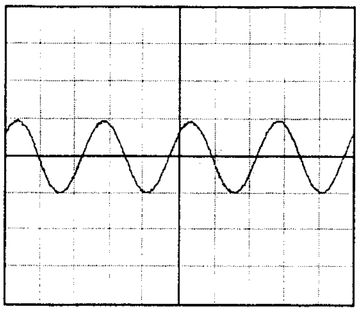
① *IC201-4 50.7mVp-p*
10mV/100ns/div.



② *IC201-6 799mVp-p*
200mV/1ms/div.

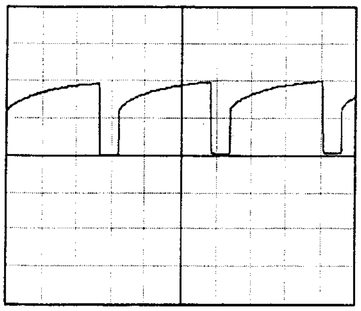


③ *IC201-8 314mVp-p*
100mV/200ns/div.

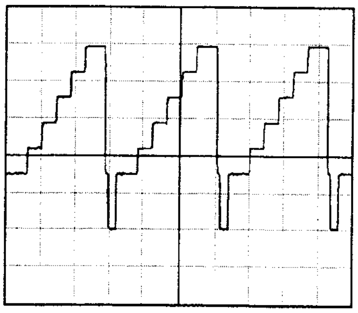


④ *IC201-33 384mVp-p*
150mV/1ms/div.

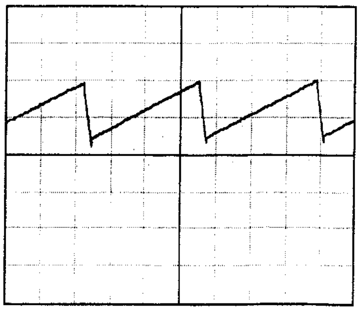
6-5. VIEWFINDER CIRCUIT



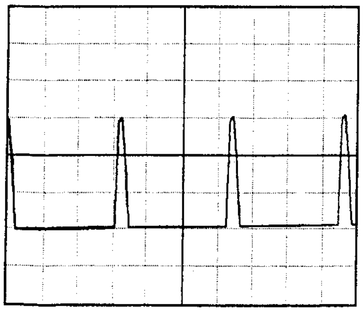
① *IC971-16 2.0Vp-p*
1.0V/20µs/div.



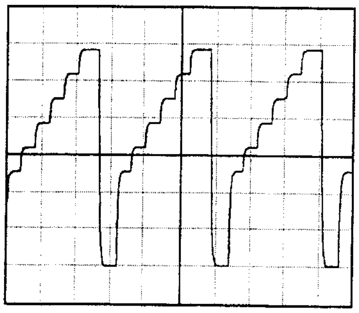
② *IC971-11 0.98Vp-p*
0.2V/20µs/div.



③ *CN972-1 1.75Vp-p*
1.0V/5ms/div.



④ *FBT-4 60.0Vp-p*
20.0V/20µs/div.



⑤ *D9701 Cathode 11.5Vp-p*
2.0V/20µs/div.

7. VOLTAGE CHART

7-1. CAMERA CIRCUIT (TC-1 BOARD)

MODE	CAMERA		MODE	CAMERA		MODE	CAMERA		MODE	CAMERA		MODE	CAMERA		MODE	CAMERA	
PIN NO.	ON	STOP	PIN NO.	ON	STOP	PIN NO.	ON	STOP	PIN NO.	ON	STOP	PIN NO.	ON	STOP	PIN NO.	ON	STOP
IC931			50	2.8	–	35	4.8	–	4	0.0	0.0	5	3.0	3.0	1	–	–
1	–	–	51	4.9	–	36	4.8	–	5	–	–	6	0.0	0.0	2	–	–
2	–	–	52	2.8	–	37	4.8	–	6	–	–	Q9302			3	4.9	4.9
3	–	–	53	–	–	38	4.8	–	7	–	–	1	0.5	0.0	4	–	–
4	0.0	0.0	54	2.7	2.7	39	–	–	8	–	–	2	1.0	1.0	5	–	–
5	0.0	0.0	55	3.8	–	40	–	–	9	–	–	3	4.9	4.9	6	4.9	4.9
6	4.9	4.9	56	4.9	4.9	41	0.0	–	10	4.8	4.8	4	2.1	2.1	Q9331		
7	4.9	–	57	–	–	42	0.4	–	11	0.0	0.0	5	2.7	2.7	1	0.5	0.5
8	0.0	0.0	58	2.4	–	43	4.9	–	12	6.6	6.6	6	2.7	2.7	2	1.0	1.0
9	4.9	4.9	59	2.3	–	44	0.0	–	13	–	–	Q9304			3	4.9	4.9
10	4.8	–	60	4.9	4.9	45	3.2	–	14	0.1	–	1	2.1	2.1	4	2.1	–
11	4.8	–	61	0.0	0.0	46	1.5	–	15	–	–	2	2.7	2.7	5	2.7	–
12	4.8	–	62	0.0	0.0	47	–	–	16	0.0	0.0	3	4.8	4.8	6	2.7	–
13	4.8	–	63	–	0.0	48	4.8	–	17	–	–	4	2.1	2.1	Q9332		
14	4.8	–	64	0.0	0.0	49	–	–	18	0.1	–	5	2.7	2.7	1	0.5	0.5
15	4.8	–	IC932			50	–	–	19	–	–	6	4.9	4.9	2	1.0	1.0
16	4.8	–	1	0.0	0.0	51	–	–	20	6.6	6.6	Q9305			3	4.9	4.9
17	0.0	0.0	2	–	–	52	4.9	–	21	1.4	–	1	0.5	0.5	4	2.1	–
18	4.8	–	3	–	–	53	4.8	4.8	22	14.2	–	2	1.0	1.0	5	2.7	–
19	4.8	–	4	1.1	–	54	2.8	–	23	12.2	–	3	4.9	4.9	6	2.7	–
20	4.9	4.9	5	2.1	–	55	2.6	–	24	7.3	–	4	2.1	2.1			
21	0.0	0.0	6	3.5	–	56	0.0	0.0	25	2.4	–	5	2.7	2.7			
22	0.0	0.0	7	–	–	57	4.8	–	26	2.4	–	6	2.7	2.7			
23	4.9	4.9	8	0.0	–	58	4.8	–	27	0.0	–	Q9306					
24	4.9	4.9	9	0.0	0.0	59	–	–	28	–	–	1	0.5	0.5			
25	4.9	4.9	10	0.0	0.0	60	–	–	29	4.9	4.9	2	1.0	1.0			
26	0.0	0.0	11	2.9	–	61	–	–	30	4.9	–	3	4.9	4.9			
27	2.9	–	12	–	–	62	4.9	–	IC935			4	2.1	2.1			
28	4.9	–	13	0.0	0.0	63	4.9	–	1	1.9	1.7	5	2.7	0.0			
29	4.9	–	14	4.9	4.9	64	4.7	–	2	1.8	1.7	6	2.7	2.7			
30	4.5	–	15	4.8	–	65	4.5	–	3	1.9	1.7	Q9311					
31	0.1	–	16	4.9	–	66	0.0	–	4	0.0	0.0	1	2.0	2.0			
32	0.0	0.0	17	4.9	–	67	–	–	5	2.5	0.8	2	2.7	2.7			
33	–	–	18	–	–	68	–	–	6	2.5	0.7	3	0.0	0.0			
34	2.7	2.7	19	4.9	–	69	0.0	–	7	3.3	4.9	4	2.7	2.7			
35	2.7	2.7	20	–	–	70	0.0	–	8	4.9	4.9	5	2.0	2.0			
36	–	–	21	–	–	71	0.0	–	IC936			6	4.9	4.9			
37	–	–	22	–	–	72	–	–	1	2.7	1.4	Q9313					
38	3.7	3.7	23	4.4	–	73	–	–	2	2.4	2.4	B	4.9	4.9			
39	3.9	3.9	24	0.0	–	74	–	–	3	2.4	2.4	C	6.8	6.8			
40	2.9	2.7	25	–	–	75	4.9	4.9	4	0.0	0.0	E	4.9	4.9			
41	2.7	2.7	26	–	–	76	5.0	5.0	5	0.0	0.0	Q9315					
42	3.5	–	27	–	–	77	0.0	0.0	6	0.0	0.0	B	2.7	–			
43	3.8	–	28	–	–	78	0.0	–	7	–	–	C	–	–			
44	3.8	3.8	29	–	–	79	0.0	0.0	8	4.9	4.9	E	0.0	–			
45	3.8	–	30	0.1	–	80	4.9	–	Q9301			Q9320					
46	0.0	0.0	31	4.8	–	IC933			1	3.3	2.3	B	2.4	2.4			
47	4.8	4.8	32	4.8	–	1	0.0	0.0	2	2.7	2.7	C	4.9	4.9			
48	–	–	33	4.8	–	2	0.0	–	3	0.0	0.0	E	1.9	1.9			
49	0.0	0.0	34	4.8	–	3	–	–	4	3.3	2.3	Q9322					

7-2. SERVO/SYSTEM CONTROL CIRCUIT

MODE / PIN NO.	STOP	REC	PLAY	FFWD/REW	SERCH REV/FWD	PAUSE REC	PAUSE PLAY
IC321							
1	–	–	–	–	–	–	–
2	4.8	4.8	4.8	4.8	4.8	4.8	4.8
3	0.1	0.2	0.2	0.2	0.2	0.1	0.1
4	4.3	3.9	4.0	4.1	4.0	4.1	4.3
5	4.9	4.9	4.9	4.9	4.9	4.9	4.9
6	5.0	4.9	4.9	4.9	4.9	4.9	4.9
7	–	–	–	–	–	–	–
8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
9	2.7	2.7	2.7	2.7	2.7	2.7	2.7
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	–	–	–	–	–	–	–
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.1	0.1	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.1	0.1	0.1	0.0	0.2	0.2	0.1
17	–	–	–	–	–	–	–
18	4.9	4.9	4.9	4.9	4.8	4.9	4.8
19	4.4	4.4	4.4	4.4	4.4	4.4	4.4
20	5.0	4.9	4.9	4.9	4.9	4.9	4.9
IC323							
1	2.0	2.4	2.0	2.0	2.0	2.0	2.0
2	4.4	4.4	4.4	4.4	4.4	4.4	4.4
3	–	–	–	–	–	–	–
4	4.8	4.8	4.8	4.8	4.7	4.8	4.7
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	2.0	2.3	2.3	2.0	2.2	2.3	2.4
7	4.9	4.9	4.9	4.9	4.9	4.9	4.9
8	1.9	1.9	1.9	1.9	1.9	1.9	1.9
IC341							
1	4.9	4.9	4.9	4.9	4.9	4.9	4.9
2	–	–	–	–	–	–	–
3	5.0	5.0	5.0	5.0	5.0	5.0	5.0
4	3.2	3.1	3.2	3.1	3.1	3.1	3.1
5	4.9	4.9	4.9	4.9	4.9	4.9	4.9
6	0.0	0.1	0.0	0.0	0.0	0.0	0.0
7	5.1	5.1	5.1	5.1	5.1	5.1	5.1
8	6.0	5.9	6.0	5.9	6.0	5.9	6.0
IC351							
1	–	–	–	–	–	–	–
2	0.0	1.4	1.4	*1	*2	0.0	0.0
3	0.0	1.4	1.5	1.5	2.5	1.4	1.4
4	4.9	4.9	4.9	4.9	4.9	4.9	4.9
5	4.9	5.0	5.0	5.0	4.9	4.9	5.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	5.0	5.0	5.0	5.0	5.0	5.0	5.0
8	5.0	5.0	5.0	5.0	5.0	5.0	5.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	5.0	0.0	0.0	0.0	5.0	0.0
11	5.0	0.0	5.0	5.0	5.0	0.0	5.0
12	5.0	5.0	5.0	5.0	5.0	5.0	5.1
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	2.4	2.4	0.0	2.4	0.0	2.4
15	0.0	0.0	0.0	0.0	0.1	0.0	0.1
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	–	–	–	–	–	–	–
18	–	–	–	–	–	–	–
19	–	–	–	–	–	–	–
20	–	–	–	–	–	–	–
21	–	–	–	–	–	–	–
22	0.0	0.0	4.8	0.0	4.8	0.0	4.8
23	0.0	0.0	4.8	0.0	4.8	0.0	4.8
24	4.9	0.0	4.8	4.9	4.9	4.9	4.9
25	4.9	2.3	4.8	4.9	4.9	4.9	4.9
26	4.9	2.3	4.8	4.9	4.9	4.9	4.9
27	0.0	4.9	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	4.8	0.0	4.8
29	4.9	4.9	4.9	4.9	0.0	4.9	0.0
30	4.9	4.9	4.9	4.9	4.9	4.9	4.9
31	4.9	0.0	0.0	*3	*3	4.9	4.9
32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33	5.0	5.0	5.0	5.0	5.0	5.0	5.0
34	5.0	5.0	5.0	5.0	5.0	5.0	5.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36	0.0	4.9	4.9	4.9	4.9	4.9	4.9
37	4.9	4.9	4.9	*4	*4	4.9	4.9
38	4.9	4.9	4.9	4.8	4.9	4.9	4.9
39	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41	4.9	4.9	4.9	4.9	4.9	4.9	4.9
42	4.9	0.0	0.0	0.0	0.0	0.0	0.0
43	4.9	0.0	0.0	0.0	0.0	4.9	4.9
44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46	–	–	–	–	–	–	–
47	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48	0.0	0.0	0.0	0.0	0.0	0.0	0.0
49	4.9	4.9	4.9	4.9	4.9	4.9	4.9
50	2.2	2.2	2.2	2.2	2.2	2.2	2.2
51	2.2	2.2	2.2	2.2	2.3	2.2	2.3
52	4.9	4.9	4.9	4.9	4.9	4.9	4.9
53	0.0	0.0	0.0	0.0	0.0	0.0	0.0
54	0.8	0.8	0.9	0.9	0.9	0.8	0.9
55	0.7	0.7	0.7	0.7	0.7	0.7	0.7
56	0.1	0.1	0.1	1.1	0.6	0.1	0.1
57	0.0	1.7	0.1	1.7	0.6	0.0	0.0
58	0.0	4.9	0.0	0.0	0.0	*5	0.0
59	4.9	4.9	4.9	4.9	4.9	4.9	4.9
60	4.9	4.9	0.0	4.9	0.0	4.9	0.0
61	4.2	4.4	0.7	4.9	0.7	4.2	0.7
62	–	–	–	–	–	–	–
63	4.9	0.0	0.0	4.9	4.9	0.0	4.9
64	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	4.9	4.9	4.9	4.9	4.8	4.9	4.9
66	–	–	–	–	–	–	–
67	–	–	–	–	–	–	–
68	4.9	4.9	4.9	4.9	4.8	4.9	4.9
69	4.9	4.9	4.9	4.9	4.9	4.9	4.9
70	4.9	4.9	4.9	4.9	4.9	4.9	4.9
71	4.9	4.9	4.9	4.9	4.9	4.9	4.9
72	4.9	4.9	4.9	4.9	4.9	4.9	4.9
73	4.9	4.9	4.9	4.9	4.9	4.9	4.9
74	4.9	4.9	4.9	4.9	4.9	4.9	4.9
75	4.9	4.9	4.9	4.9	4.9	4.9	4.9
76	4.9	4.9	4.9	4.9	4.9	4.9	4.9
77	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78	4.2	4.9	0.7	4.9	0.7	4.9	0.8
79	4.9	4.9	4.9	4.9	4.9	4.9	4.9
80	4.9	4.9	0.8	4.9	0.8	4.9	0.8
81	4.5	4.5	4.5	4.5	4.5	4.5	4.5
82	4.3	3.9	4.0	3.9	4.0	4.0	4.3
83	5.0	5.0	5.0	5.0	5.0	5.0	5.0
84	4.8	4.8	4.8	4.8	4.8	4.8	4.8
85	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86	0.0	0.1	0.1	0.1	0.1	0.1	0.0
87	4.9	4.9	4.9	4.9	4.9	4.9	4.9
88	4.9	4.9	4.9	5.0	4.9	4.9	4.9
89	5.0	5.0	5.0	5.0	5.0	5.0	5.0
90	2.4	2.4	2.4	2.4	2.4	2.4	2.4
91	–	–	–	–	–	–	–
92	4.9	4.9	4.9	4.9	4.9	4.9	4.9
93	2.8	2.7	2.8	2.8	2.8	2.8	2.8
94	2.2	2.2	2.2	2.2	2.2	2.2	2.2
95	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98	0.0	0.0	0.0	1.0	0.4	0.0	0.0
99	0.0	*6	0.0	1.0	0.4	0.0	0.0
100	–	–	–	–	–	–	–
101	–	–	–	–	–	–	–
102	4.9	4.9	4.8	4.9	4.8	4.9	4.8
103	4.9	4.9	4.8	4.9	4.8	4.9	4.8
104	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106	2.4	2.4	2.4	2.4	2.4	2.4	2.4
107	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108	3.1	2.9	2.4	2.9	2.4	2.9	2.4
109	3.1	2.9	2.4	2.9	2.4	3.0	2.4
110	2.3	2.3	2.4	2.3	2.4	2.3	2.4

*1 3.9／3.5 *2 1.2／2.3 *3 4.9／0.0 *4 0.0／4.9 *5 0.1／4.9 *6 0.2／1.8

MODE / PIN NO.	STOP	REC	PLAY	FFWD/REW	SERCH REV/FWD	PAUSE REC	PAUSE PLAY
111	2.3	2.3	2.4	2.3	2.4	2.3	2.4
112	4.9	4.8	2.4	4.9	2.4	4.9	2.4
113	4.9	4.8	2.4	4.9	2.4	4.9	2.4
114	–	–	–	–	–	–	–
115	2.4	2.5	2.4	2.5	2.4	2.4	2.4
116	2.4	2.4	2.4	2.4	2.4	2.4	2.4
117	2.4	2.4	2.4	2.4	2.4	2.4	2.4
118	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119	4.9	4.9	4.8	4.9	4.8	4.9	4.8
120	0.0	0.1	0.1	0.1	0.1	0.1	0.1
121	0.0	2.4	2.4	2.4	2.4	2.4	2.4
122	0.0	2.5	2.5	2.4	2.4	0.0	0.0
123	4.8	4.8	4.8	4.8	4.7	4.8	4.7
124	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126	4.9	4.9	4.9	4.9	4.9	4.9	4.9
127	0.1	0.2	0.2	0.2	0.1	0.1	0.1
128	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IC361							
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.5	0.7	0.8	*1	*2	0.4	0.4
4	0.1	1.5	1.6	*3	*4	0.1	0.1
5	5.9	5.9	6.0	5.9	6.0	5.9	6.0
6	5.0	4.9	5.0	5.0	5.0	5.0	5.0
7	4.9	4.9	4.9	4.9	4.9	4.9	4.9
8	0.7	0.7	0.7	0.7	0.7	0.7	0.7
9	–	–	–	–	–	–	–
10	2.5	2.5	2.5	2.5	2.5	2.5	2.5
11	2.5	2.5	2.5	2.5	2.5	2.5	2.5
12	2.5	2.5	2.5	2.5	2.5	2.5	2.5
13	0.0	2.5	2.5	2.4	2.4	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	4.9	0.0	0.0	*5	*5	4.9	4.9
19	–	–	–	–	–	–	–
20	1.5	1.5	1.5	1.5	1.5	1.5	1.5
21	1.5	1.5	1.5	1.5	1.5	1.5	1.5
22	1.8	1.9	1.9	1.9	1.9	1.9	1.9
23	1.9	1.9	1.9	1.9	1.9	1.9	1.9
24	2.4	2.3	2.4	2.4	2.4	2.3	2.4
25	2.4	2.3	2.4	2.4	2.4	2.4	2.4
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.1	0.8	0.8	*1	*2	0.1	0.1
28	0.1	0.8	0.8	*1	*2	0.1	0.1
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IC381							

MODE / PIN NO.	STOP	REC	PLAY	FFWD/REW	SERCH REV/FWD	PAUSE REC	PAUSE PLAY
1	0.0	0.9	0.9	0.9	0.9	0.8	0.9
2	0.0	0.8	0.9	0.9	0.9	0.9	0.8
3	2.2	2.2	2.2	2.2	2.2	2.2	2.2
4	0.0	0.1	0.1	0.1	0.1	0.1	0.1
5	0.0	1.7	1.7	1.7	1.7	1.6	1.7
6	5.9	5.9	6.0	5.9	5.9	5.9	6.0
7	2.2	2.2	2.2	2.2	2.2	2.2	2.2
8	2.2	2.2	2.2	2.2	2.2	2.2	2.2
9	2.2	2.2	2.2	2.2	2.2	2.2	2.2
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	2.2	2.2	2.2	2.2	2.2	2.2	2.2
12	0.0	0.3	0.3	0.3	0.3	0.3	0.3
13	1.8	1.8	1.8	1.8	1.8	1.8	1.8
14	5.0	4.9	5.0	5.0	5.0	5.0	5.0
15	2.2	2.2	2.2	2.2	2.2	2.2	2.2
16	1.9	1.6	1.6	1.6	1.6	1.6	1.6
17	0.0	0.1	0.1	0.1	0.1	0.1	0.1
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	2.2	2.3	2.3	2.2	2.2	2.2	2.2
20	2.2	2.2	2.2	2.3	2.2	2.2	2.2
21	–	–	–	–	–	–	–
22	0.0	2.4	2.4	2.4	2.4	2.4	2.4
23	4.9	3.8	3.8	3.8	3.8	3.8	3.8
24	4.3	3.3	3.3	3.3	3.3	3.3	3.3
25	–	–	–	–	–	–	–
26	–	–	–	–	–	–	–
27	–	–	–	–	–	–	–
28	–	–	–	–	–	–	–
29	5.0	5.0	5.0	5.0	5.0	5.0	5.0
30	0.0	0.9	0.9	0.9	0.9	0.8	0.9
31	0.0	0.9	0.9	0.9	0.9	0.9	0.9
32	0.1	0.9	0.9	0.9	0.9	0.9	0.9
33	0.1	0.9	0.9	0.9	0.9	0.9	0.9
34	0.1	0.9	0.9	0.9	0.9	0.9	0.9
35	0.0	0.1	0.1	0.1	0.1	0.1	0.1
36	0.0	0.9	0.9	0.9	0.9	0.9	0.8
IC391							
1	4.4	4.4	4.4	4.4	4.4	4.4	4.4
2	3.9	3.8	3.9	3.9	3.8	3.9	3.9
3	5.0	5.0	5.0	5.0	5.0	5.0	5.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	5.0	5.0	5.0	5.0	5.0	5.0	5.0
7	2.4	2.4	2.4	2.4	2.4	2.4	2.4
8	2.4	2.4	2.4	2.4	2.4	2.4	2.4
9	2.2	2.3	2.2	2.3	2.3	2.2	2.2
10	5.7	5.6	5.7	5.6	5.7	5.7	5.7
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MODE / PIN NO.	STOP	REC	PLAY	FFWD/REW	SERCH REV/FWD	PAUSE REC	PAUSE PLAY
14	0.4	0.3	0.3	0.8	0.2	0.5	0.4
15	5.0	5.0	5.0	5.0	5.0	5.0	5.0
16	0.4	0.3	0.4	0.8	0.1	0.6	0.5
17	5.0	5.0	5.0	5.0	5.0	5.0	5.0
18	3.3	3.3	3.3	3.3	3.3	3.3	3.3
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	–	–	–	–	–	–	–
Q3201							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	4.9	4.9	4.9	4.9	4.9	4.9	4.8
B	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Q3202							
E	4.8	4.8	4.8	4.8	4.7	4.8	4.7
C	4.9	4.9	4.9	4.9	4.8	4.9	4.8
B	2.4	2.4	2.4	2.4	0.0	2.4	0.0
Q3301							
1	4.3	4.3	4.3	3.3	3.8	4.3	4.3
2	3.7	2.4	3.6	2.4	3.2	3.6	3.6
3	0.0	1.7	1.7	1.7	0.6	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.1	0.1	0.1	1.2	0.6	0.1	0.1
Q3351							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	3.7	0.1	3.7	3.7	3.7	*6	3.7
B	0.0	4.9	0.0	0.0	0.0	*7	0.0
Q3352							
E	5.1	5.1	5.1	5.1	5.1	5.1	5.1
C	5.1	5.1	5.1	5.1	5.1	5.1	5.1
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Q3501							
E	4.9	4.9	4.9	4.9	4.9	4.9	4.9
C	4.9	4.9	4.8	4.9	4.8	4.9	4.8
B	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Q3502							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	4.9	5.0	0.1	4.9	0.1	4.9	0.1
B	0.0	0.0	4.8	0.0	4.8	0.0	4.8
Q3503							
1	4.9	0.0	0.0	0.0	0.0	0.0	0.0
2	4.9	0.0	0.0	0.0	0.0	4.9	4.9
3	0.0	1.6	1.6	*8	*4	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	1.7	1.7	1.8	1.7	1.7	1.7
Q3571							
E	1.8	1.8	1.8	1.8	1.8	1.8	1.8
C	5.0	5.0	0.0	5.0	5.0	5.0	5.0
B	2.4	2.4	2.3	2.4	2.3	2.4	2.3
Q3802							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	4.3	3.3	3.3	3.3	3.3	3.3	3.3

*1 2.4／2.3　*2 1.4／1.5　*3 4.7／4.5　*4 2.8／2.9　*5 4.9／0.0　*6 0.1 – 3.7　*7 0.0 – 4.8　*8 4.8 – 4.4

MODE / PIN NO.	STOP	REC	PLAY	FFWD/REW	SERCH REV/FWD	PAUSE REC	PAUSE PLAY
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Q3901							
E	6.0	6.0	6.0	6.0	6.0	6.0	6.0
C	5.0	5.0	5.0	5.0	5.0	5.0	5.0
B	5.7	5.6	5.7	5.6	5.7	5.7	5.7

7-3. VIDEO CIRCUIT

MODE / PIN NO.	STOP	REC	PLAY	FFWD/REW	SERCH REV/FWD	PAUSE REC	PAUSE PLAY
IC101							
1	1.4	1.4	0.0	1.4	0.0	1.4	0.0
2	3.0	3.0	2.9	3.0	2.9	3.0	2.9
3	3.0	3.0	2.9	3.0	2.9	3.0	2.9
4	3.0	3.0	3.0	3.0	3.0	3.0	3.0
5	3.6	3.6	3.5	3.6	3.5	3.6	3.5
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	3.9	3.9	0.0	3.9	0.0	3.9	0.0
8	4.3	4.3	4.3	4.3	4.3	4.3	4.3
9	1.8	1.8	1.7	1.8	1.8	1.8	1.7
10	2.5	2.5	2.4	2.5	2.6	2.5	2.5
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.1	0.0	0.1
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	5.0	4.9	4.9	5.0	4.9	5.0	4.9
17	0.4	0.4	3.2	0.4	3.2	0.4	3.2
18	0.4	0.4	3.2	0.4	3.2	0.4	3.2
19	0.3	0.3	2.5	0.3	2.5	0.3	2.5
20	0.5	0.5	2.5	0.5	2.5	0.5	2.5
21	2.3	2.3	3.1	2.3	3.1	2.3	3.1
22	2.2	2.2	2.2	2.2	2.2	2.2	2.2
23	2.5	2.5	2.5	2.3	2.5	2.5	2.5
24	5.0	4.9	4.9	5.0	4.9	5.0	4.9
25	2.4	2.4	3.0	2.4	3.0	2.4	3.0
26	2.2	2.2	2.2	2.2	2.2	2.2	2.2
27	0.0	0.0	4.8	0.0	4.8	0.0	4.8
28	0.0	0.0	2.5	0.0	2.5	0.0	2.5
29	0.0	0.0	0.0	0.0	1.2	0.0	1.2
30	0.1	0.2	3.5	0.1	3.5	0.1	3.5
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32	3.4	3.3	3.5	3.4	3.5	3.4	3.5
33	2.7	2.7	2.6	2.7	2.6	2.7	2.6
34	0.0	2.4	1.6	0.0	1.6	0.0	1.6
35	4.9	4.9	4.8	4.9	4.8	4.9	4.8
36	4.0	4.0	2.3	4.0	2.3	4.1	2.3
37	1.8	2.2	1.8	1.8	1.8	1.8	1.8
38	3.8	2.1	3.7	3.8	3.7	3.8	3.7
39	0.2	0.3	3.2	0.2	3.2	0.2	3.2

MODE / PIN NO.	STOP	REC	PLAY	FFWD/REW	SERCH REV/FWD	PAUSE REC	PAUSE PLAY
40	4.9	4.9	4.8	4.9	4.8	4.9	4.9
41	1.0	2.3	1.0	1.0	1.0	1.0	1.0
42	3.5	3.5	3.5	3.5	4.3	3.5	4.3
43	2.2	2.2	2.1	2.2	2.1	2.2	2.1
44	2.2	2.2	2.2	2.2	2.2	2.2	2.2
45	2.2	2.2	2.1	2.2	2.1	2.2	2.1
46	2.1	2.1	2.1	2.1	2.1	2.1	2.1
47	4.1	2.3	2.1	4.1	2.1	4.1	2.1
48	4.1	2.3	2.1	4.1	2.1	4.1	2.1
49	0.0	2.4	2.4	0.0	2.4	0.0	2.4
50	2.9	3.1	3.1	2.9	3.2	2.9	3.2
51	2.3	4.4	2.3	2.4	2.3	2.3	2.3
52	1.2	1.9	1.8	1.2	1.9	1.2	1.9
53	4.2	4.2	4.2	4.2	4.2	4.2	4.2
54	0.2	0.2	0.2	0.2	0.2	0.2	0.2
55	2.4	2.4	2.3	2.4	2.3	2.4	2.3
56	1.8	1.8	1.8	1.8	1.8	1.8	1.8
57	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58	0.1	2.3	2.3	0.1	2.3	0.1	2.3
59	1.3	1.3	1.3	1.3	1.3	1.3	1.3
60	0.1	0.1	2.5	0.1	2.5	0.1	2.5
61	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62	3.9	3.9	3.9	3.9	3.9	3.9	3.9
63	3.2	3.2	2.4	3.2	2.3	3.2	2.3
64	0.4	0.4	0.4	0.4	0.4	0.4	0.4
IC111							
1	0.0	0.0	2.4	0.0	2.4	0.0	2.4
2	0.1	0.1	2.5	0.1	2.5	0.1	2.5
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.1	0.1	1.7	0.1	1.7	0.1	1.7
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.1	0.1	1.2	0.1	1.2	0.1	1.2
9	0.1	0.1	4.9	0.1	4.9	0.1	4.9
10	0.0	0.0	2.1	0.0	2.1	0.0	2.1
11	0.0	0.0	2.1	0.0	2.1	0.0	2.1
12	0.5	0.5	4.9	0.5	4.9	0.5	4.9
13	0.0	0.0	8.9	0.0	8.9	0.0	8.9
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IC121							
1	1.1	1.1	1.2	1.2	1.2	1.1	1.2
2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
3	3.9	3.9	3.9	3.9	3.9	3.9	3.9
4	2.2	2.2	2.3	2.2	2.3	2.3	2.3
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7	0.0	0.0	0.8	0.0	0.8	0.0	0.8
8	4.9	4.8	4.8	4.9	4.8	4.9	4.8
9	2.2	2.2	2.2	2.2	2.2	2.2	2.2

MODE / PIN NO.	STOP	REC	PLAY	FFWD/REW	SERCH REV/FWD	PAUSE REC	PAUSE PLAY
10	2.2	2.1	2.2	2.2	–	2.1	–
11	2.2	2.2	2.2	2.2	2.2	2.1	2.2
12	3.7	3.7	3.7	3.7	3.7	3.7	3.7
13	1.7	1.7	1.7	1.7	1.7	1.7	1.7
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	2.4	2.4	0.0	2.4	0.0	2.4
16	0.4	0.4	0.5	0.4	0.4	0.4	0.4
17	1.1	1.1	4.5	1.1	4.5	1.1	4.5
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	1.1	1.1	4.5	1.1	4.5	1.1	4.5
21	0.0	0.0	0.0	0.0	1.2	0.0	1.2
22	0.0	0.0	0.0	0.0	4.8	0.0	4.8
23	0.5	0.5	0.5	0.5	0.5	0.5	0.5
24	0.3	0.3	0.3	0.3	0.3	0.3	0.3
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	4.9	4.9	4.8	4.9	4.8	4.9	4.8
27	4.9	4.9	4.8	4.9	4.8	4.9	4.8
28	2.6	0.0	0.0	2.6	0.0	2.6	0.0
29	4.5	4.5	4.5	4.5	4.5	4.5	4.5
30	1.2	1.4	1.2	1.2	1.2	1.4	1.1
31	1.2	1.1	1.2	1.2	1.2	1.2	1.2
32	4.9	4.9	4.8	4.9	4.8	4.9	4.8
33	2.8	2.8	2.8	2.8	2.8	2.8	2.8
34	2.5	2.5	2.5	2.5	2.5	2.5	2.5
35	3.2	3.2	3.2	3.2	3.2	3.2	3.2
36	0.0	0.0	2.4	0.0	2.4	0.0	2.4
37	1.9	1.9	1.9	1.9	1.9	1.9	1.9
38	2.9	2.7	2.2	2.9	2.2	2.9	2.2
39	0.8	2.1	2.1	0.8	2.1	0.8	2.1
40	2.8	2.7	2.7	2.8	2.7	2.8	2.7
41	1.1	1.1	1.1	1.1	1.1	1.1	1.1
42	3.0	3.0	2.9	3.0	2.9	3.0	2.9
43	4.9	4.9	4.8	4.9	4.8	4.9	4.8
44	3.0	2.9	2.9	3.0	2.9	3.0	2.9
45	0.0	2.5	2.5	0.0	2.4	0.0	2.4
46	3.2	3.2	3.2	3.2	3.2	3.2	3.2
47	0.1	2.5	2.4	0.1	2.4	0.1	2.5
48	2.5	2.5	3.2	2.5	3.2	2.5	3.2
IC191							
1	0.0	0.0	4.8	0.0	4.8	0.0	4.8
2	3.2	3.2	0.0	3.2	0.0	3.2	0.0
3	4.2	4.2	4.2	4.2	4.2	4.2	4.2
4	3.2	3.2	0.2	3.2	0.2	3.2	0.2
5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
6	3.2	3.2	0.0	3.2	0.0	3.2	0.0
7	4.8	4.8	4.8	4.8	4.8	4.8	4.8
8	2.0	2.8	1.8	2.0	1.8	2.0	1.8
9	3.8	4.0	3.7	3.8	3.7	3.8	3.7
10	3.7	3.7	2.5	3.7	2.5	3.7	2.5

MODE / PIN NO.	STOP	REC	PLAY	F.FWD / REW	SERCH REV/FWD	PAUSE REC	PAUSE PLAY
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	2.5	2.5	2.5	2.5	2.5	2.5	2.5
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	2.5	2.5	2.5	2.5	2.5	2.5	2.5
15	0.5	1.0	4.8	0.5	4.8	0.5	4.8
16	2.6	2.6	2.5	2.6	2.5	2.6	2.5
17	4.8	4.8	4.8	4.8	4.8	4.8	4.8
18	4.8	4.8	4.8	4.8	4.8	4.8	4.8
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	2.0	2.0	1.8	2.0	1.8	2.0	1.8
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	3.8	3.8	3.8	3.8	3.8	3.8	3.8
24	2.5	2.5	2.5	2.5	2.5	2.5	2.5
25	1.8	1.8	1.7	1.8	1.7	1.8	1.7
26	0.0	0.0	2.5	0.0	2.5	0.0	2.5
27	4.8	4.8	4.8	4.8	4.8	4.8	4.8
28	4.8	4.8	4.9	4.8	4.9	4.8	4.9
29	2.3	2.3	2.1	2.3	2.1	2.3	2.1
30	4.0	4.0	2.1	4.0	2.1	4.0	2.1
31	4.0	4.0	2.1	4.0	2.1	4.0	2.1
32	2.3	2.3	2.1	2.3	2.1	2.3	2.1
33	4.8	4.8	4.9	4.8	4.9	4.8	4.9
34	4.8	4.8	4.8	4.8	4.8	4.8	4.8
35	0.0	0.0	2.5	0.0	2.5	0.0	2.5
36	1.8	1.8	1.8	1.8	1.8	1.8	1.8
37	2.5	2.5	2.5	2.5	2.5	2.5	2.5
38	3.8	3.8	3.8	3.8	3.8	3.8	3.8
39	0.0	2.2	2.2	0.0	2.2	0.0	2.2
40	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42	0.2	1.1	1.1	0.2	1.1	0.2	1.1
43	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	4.0	1.9	4.0	4.0	4.0	4.0	4.0
46	2.5	2.5	2.5	2.5	2.5	2.5	2.5
47	4.0	1.9	4.0	4.0	4.0	4.0	4.0
48	3.2	3.2	0.9	3.2	0.9	3.2	0.9
D1001							
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
D1301							
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Q1002							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	0.1	0.1	0.1	0.1	0.1	0.1	0.1
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Q1003							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	2.1	2.1	2.1	2.1	2.1	2.1	2.1
B	0.3	0.3	0.3	0.3	0.2	0.3	0.3
Q1004							
E	2.2	2.2	2.2	2.2	2.2	2.2	2.2
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	2.2	2.2	2.1	2.2	2.1	2.2	2.1
Q1005							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	4.9	4.9	4.9	4.9	4.9	4.9	4.9
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Q1006							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	3.0	3.0	3.0	3.0	3.0	3.0	3.0
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Q1007							
E	3.6	3.6	3.6	3.6	4.2	3.6	4.2
C	0.0	0.0	0.0	0.0	4.8	0.0	4.8
B	0.0	0.0	0.0	0.0	4.8	0.0	4.8
Q1008							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	2.2	2.2	0.0	2.2	0.0	2.2	0.0
B	0.0	0.0	4.8	0.0	4.8	0.0	4.8
Q1009							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Q1011							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	–	–	–	–	0.0	–	0.0
B	0.0	0.0	0.0	0.0	4.8	0.0	4.8
Q1012							
E	1.2	1.5	1.5	1.2	1.6	1.2	1.5
C	4.1	3.9	3.8	4.1	3.8	4.1	3.8
B	1.8	2.1	2.1	1.8	2.2	1.8	2.2
Q1013							
E	1.8	2.2	2.2	1.8	2.2	1.8	2.2
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	1.2	1.5	1.5	1.2	1.6	1.2	1.6
Q1015							
E	1.2	1.5	1.6	1.2	1.6	1.2	1.6
C	4.9	4.9	4.8	4.9	4.8	4.9	4.8
B	1.8	2.2	2.2	1.8	2.2	1.8	2.2
Q1017							
E	1.8	2.1	2.1	1.8	2.2	1.8	2.2
C	1.2	1.9	2.1	1.2	2.2	1.2	2.2
B	0.0	0.0	2.8	0.0	2.8	0.0	2.8
Q1018							
E	1.8	2.2	2.2	1.8	2.2	1.8	2.2
C	1.8	2.2	2.2	1.8	2.2	1.8	2.2
B	0.0	0.0	2.8	0.0	2.9	0.0	2.9
Q1019							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	0.5	0.5	0.0	0.5	0.0	0.5	0.0
B	0.0	0.0	4.8	0.0	4.8	0.0	4.8
Q1023							
E	0.0	0.0	2.9	0.0	2.9	0.0	2.9
C	0.0	0.0	4.9	0.0	4.9	0.0	4.9
B	0.0	0.0	3.6	0.0	3.6	0.0	3.6
Q1024							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	0.1	0.1	0.1	0.1	0.1	0.1	0.
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Q1025							
E	0.0	0.0	3.6	0.0	3.6	0.0	3.6
C	0.0	0.0	1.3	0.0	1.3	0.0	1.3
B	0.0	0.0	2.9	0.0	2.9	0.0	2.9
Q1026							
E	0.0	0.0	0.9	0.0	0.9	0.0	0.9
C	0.0	0.0	2.5	0.0	2.5	0.0	2.5
B	0.0	0.0	1.6	0.0	1.6	0.0	1.6
Q1031							
E	2.4	4.4	2.3	2.4	2.3	2.4	2.3
C	0.0	4.8	0.0	0.0	0.0	0.0	0.0
B	0.0	4.8	0.0	0.0	0.0	0.0	0.0
Q1091							
E	5.0	5.0	4.9	5.0	4.9	5.0	4.9
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	5.0	4.9	4.9	5.0	5.0	5.0	5.0
Q1093							
E	0.4	0.4	0.4	0.2	0.2	0.2	0.2
C	4.9	4.9	4.9	4.9	0.2	0.2	0.2
B	0.0	0.0	0.0	0.0	0.4	0.4	0.4
Q1094							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	0.4	0.4	0.4	0.2	0.2	0.2	0.2
B	0.0	0.0	0.0	4.9	4.9	4.9	4.9
Q1101							
E	0.0	0.0	1.5	0.0	1.5	0.0	1.5
C	0.8	0.9	3.0	0.8	3.0	0.8	3.0
B	0.6	0.7	2.1	0.6	2.1	0.6	2.1
Q1102							
E	0.2	0.3	2.3	0.2	2.4	0.2	2.3
C	0.8	0.9	4.8	0.8	4.7	0.8	4.8
B	0.8	0.9	2.9	0.8	3.0	0.8	3.0
Q1103							
E	0.0	0.0	1.4	0.0	1.4	0.0	1.4
C	0.8	0.9	3.6	0.8	3.6	0.8	3.6
B	0.2	0.3	2.0	0.2	2.1	0.2	2.1

MODE / PIN NO.	STOP	REC	PLAY	F.FWD/REW	SERCH REV/FWD	PAUSE REC	PAUSE PLAY
Q1104							
E	0.0	0.0	1.3	0.0	1.3	0.0	1.3
C	0.8	0.9	2.8	0.8	2.9	0.8	2.9
B	0.6	0.7	2.0	0.6	2.0	0.6	2.0
Q1105							
E	0.2	0.3	2.1	0.2	2.2	0.2	2.2
C	0.8	0.9	4.7	0.8	4.7	0.8	4.7
B	0.8	0.9	2.8	0.8	2.8	0.8	2.8
Q1106							
E	0.0	0.0	0.8	0.0	0.8	0.0	0.8
C	0.8	0.9	4.8	0.8	4.7	0.8	4.8
B	0.0	0.0	1.4	0.0	1.5	0.0	1.5
Q1107							
E	0.0	0.0	0.9	0.0	0.9	0.0	0.9
C	0.8	0.9	4.7	0.8	4.7	0.8	4.7
B	0.2	0.2	1.5	0.2	1.6	0.2	1.6
Q1202							
1	4.1	4.1	4.1	4.1	0.0	4.1	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	4.1	4.1	4.0	4.1	0.0	4.1	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	4.8	0.0	4.8
Q1203							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Q1205							
E	0.0	0.0	2.4	0.0	2.4	0.0	2.4
C	0.8	0.9	4.8	0.8	4.8	0.8	4.8
B	0.2	0.3	3.1	0.2	3.1	0.2	3.1
Q1206							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	0.0	4.8	0.0	0.0	0.0	0.0	0.0
Q1301							
E	0.6	3.2	3.1	0.6	3.1	0.6	3.2
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	0.0	2.6	2.5	0.0	2.5	0.0	2.5
Q1302							
E	0.8	0.9	3.1	0.8	3.8	0.8	3.8
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	0.6	3.2	3.1	0.6	3.1	0.6	3.1
Q1303							
E	0.2	0.3	3.1	0.2	3.1	0.2	3.1
C	0.8	0.9	4.8	0.8	4.8	0.8	4.8
B	0.8	0.9	3.8	0.8	3.8	0.8	3.8
Q1304							
E	0.7	0.7	2.2	0.7	2.2	0.7	2.2
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	0.1	0.2	1.5	0.1	1.5	0.1	1.5
Q1305							
E	0.0	0.0	1.5	0.0	1.5	0.0	1.5
C	0.8	0.9	4.8	0.8	4.8	0.8	4.8
B	0.4	0.4	2.1	0.4	2.1	0.4	2.1
Q1308							
E	0.8	0.9	4.9	0.8	4.9	0.8	4.9
C	0.3	0.7	4.9	0.3	4.9	0.3	4.9
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Q1309							
E	0.1	0.2	3.5	0.1	3.5	0.1	3.5
C	0.8	0.9	4.8	0.8	4.8	0.8	4.8
B	0.7	0.8	4.2	0.7	4.2	0.7	4.2
Q1310							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	0.4	0.5	0.4	0.4	0.2	0.4	0.3
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Q1311							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	0.1	0.1	0.1	0.1	0.1	0.1	0.1
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Q1343							
E	0.0	1.8	1.0	0.0	0.9	0.0	0.9
C	0.7	3.0	3.9	0.7	3.9	0.7	3.9
B	0.0	2.4	1.6	0.0	1.6	0.0	1.6
Q1344							
E	0.0	1.1	0.4	0.0	0.4	0.0	0.4
C	0.7	4.8	4.8	0.7	4.8	0.7	4.8
B	0.0	1.7	0.9	0.0	0.9	0.0	0.9
Q1361							
E	0.6	0.9	0.9	0.6	0.9	0.6	0.9
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	0.1	0.3	0.3	0.1	0.3	0.1	0.3
Q1413							
E	5.0	5.0	4.9	5.0	4.9	5.0	4.9
C	0.8	0.0	4.9	0.8	4.9	0.0	4.9
B	4.5	4.4	4.2	4.5	4.2	4.5	4.2
Q1422							
E	5.0	4.9	4.9	5.0	4.9	5.0	4.9
C	5.0	4.9	4.9	5.0	4.9	5.0	4.9
B	4.3	4.3	4.2	4.3	4.2	4.3	4.2
Q1453							
E	1.3	1.3	1.3	1.3	1.3	1.3	1.3
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Q1456							
E	1.9	1.9	1.9	1.9	1.9	1.9	1.9
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Q1457							
E	1.9	1.9	1.9	1.9	1.9	1.9	1.9
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Q1601							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	0.3	0.3	0.5	0.3	0.3	0.3	0.4
B	0.0	0.0	0.0	0.0	0.2	0.0	0.1
Q1602							
E	0.0	0.0	1.5	0.0	1.4	0.0	1.4
C	4.9	4.8	4.8	4.9	4.8	4.9	4.8
B	0.0	0.0	2.1	0.0	2.1	0.0	2.1
Q1604							
E	0.0	0.0	3.0	0.0	3.0	0.0	3.0
C	4.9	4.8	4.8	4.9	4.8	4.9	4.8
B	0.0	0.0	3.6	0.0	3.6	0.0	3.6
Q1605							
E	0.8	0.9	4.8	0.8	4.8	0.8	4.8
C	0.2	0.3	4.8	0.2	1.8	0.2	1.8
B	0.0	0.0	0.0	0.0	4.8	0.0	4.8
Q1702							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	4.8	4.8	4.8	4.8	4.8	4.8	4.8
Q1801							
E	0.7	4.5	4.9	0.7	4.9	0.8	4.9
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	0.7	4.0	4.9	0.7	4.9	0.7	4.9
Q1802							
E	0.7	3.0	4.9	0.7	4.9	0.7	4.9
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	2.1	3.4	4.9	2.1	4.9	2.1	4.9
Q1901							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	4.7	2.2	2.2	4.7	2.2	2.2	2.2
B	0.1	2.2	2.2	0.1	2.2	2.2	2.2

7-4. AUDIO CIRCUIT

MODE / PIN NO.	STOP	REC	PLAY	FFWD/REW	SEARCH REV/FWD	PAUSE REC	PAUSE PLAY
IC201							
1	0.6	3.2	3.2	0.6	3.2	3.2	3.2
2	0.0	0.0	0.8	0.0	0.8	0.0	1.3
3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
4	2.5	2.5	1.6	2.5	1.6	2.5	1.6
5	0.7	0.7	4.9	0.7	4.9	0.7	4.9
6	2.1	2.1	2.2	2.1	2.2	2.1	2.2
7	5.0	5.0	4.9	5.0	4.9	5.0	4.9
8	1.9	1.9	1.3	1.9	1.3	1.9	1.3
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	1.3	1.4	0.0	1.4	1.3	1.4
11	0.0	0.0	0.0	0.0	0.0	0.0	3.5
12	0.0	0.0	2.2	0.0	2.2	0.0	2.2
13	4.9	4.9	4.9	4.9	4.9	4.9	4.9
14	2.1	2.1	2.1	2.1	2.1	2.1	2.1
15	2.1	2.1	2.1	2.1	2.1	2.1	2.1
16	2.1	2.1	2.1	2.1	2.1	2.1	2.1
17	4.9	4.9	4.9	4.9	4.9	4.9	4.9
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	2.4	2.4	2.3	2.4	2.3	2.4	2.3
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	5.0	5.0	4.9	5.0	4.9	5.0	4.9
23	2.1	2.1	2.1	2.1	2.1	2.1	2.1
24	2.1	2.1	2.1	2.1	2.1	2.1	2.1
25	2.1	2.1	2.1	2.1	2.1	2.1	2.1
26	2.1	2.1	2.1	2.1	2.1	2.1	2.1
27	2.7	2.7	2.7	2.7	2.7	2.7	2.7
28	2.0	2.0	2.0	2.0	2.0	2.0	2.0
29	2.8	2.8	2.8	2.8	2.8	2.8	2.8
30	5.0	5.0	4.9	5.0	4.9	5.0	4.9
31	2.1	2.1	2.1	2.1	2.1	2.1	2.1
32	2.1	2.1	2.1	2.1	2.1	2.1	2.1
33	2.1	2.3	2.1	2.1	2.1	2.3	2.1
34	2.1	0.0	0.0	2.1	2.1	0.0	2.1
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36	2.1	2.1	2.1	2.1	2.1	2.1	2.1
37	4.0	4.0	4.0	4.0	4.0	4.0	4.0
38	2.1	2.1	2.1	2.1	2.1	2.1	2.1
39	2.1	2.1	2.0	2.1	2.0	2.1	2.0
40	1.7	1.7	1.6	1.7	1.6	1.7	1.6
41	4.2	4.2	4.2	4.2	4.2	4.2	4.2
42	4.9	4.9	4.9	4.9	4.9	4.9	4.9
43	3.9	3.9	3.9	3.9	3.9	3.9	3.9
44	2.1	2.1	2.1	2.1	2.1	2.1	2.1
45	3.2	3.2	3.2	3.2	3.2	3.2	3.2
46	2.3	2.3	2.9	2.3	2.9	2.3	2.9
47	1.9	0.0	0.0	1.9	0.0	0.0	0.0
48	0.0	0.0	1.2	0.0	0.5	0.0	0.5
Q2030							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	0.0	0.0	1.2	0.0	0.5	0.0	0.5
B	0.0	1.3	1.4	0.0	1.4	1.3	1.4
Q2031							
E	4.9	4.9	4.9	4.9	4.9	4.9	4.9
C	0.0	0.0	1.2	0.0	0.5	0.0	0.5
B	0.0	1.3	1.4	0.0	1.4	1.3	1.4
Q2902							
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	1.3	1.3	1.3	1.3	1.3	1.3	1.3
B	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Q2903							
E	0.7	0.7	0.7	0.7	0.7	0.7	0.7
C	1.9	1.9	1.9	1.9	1.9	1.9	1.9
B	1.3	1.3	1.3	1.3	1.3	1.3	1.3

7-5. VIEWFINDER CIRCUIT

MODE / PIN NO.	VIEWFINGER		
	CAMERA ON	OPEN	MONOSCOPE TAPE PLAYBACK
IC971			
1	2.3	2.4	2.3
2	5.0	5.0	5.0
3	2.2	2.1	2.2
4	0.0	0.0	0.0
5	2.3	2.4	2.3
6	1.4	1.4	1.4
7	2.2	2.1	2.2
8	4.7	4.7	4.7
9	4.3	4.3	4.3
10	0.0	0.0	0.0
11	2.0	1.8	2.3
12	4.7	4.7	4.7
13	3.1	3.4	2.4
14	2.2	1.9	2.2
15	1.9	1.9	1.9
16	2.3	2.3	2.3
FBT			
1	24	22	27
2	24	22	27
3	4.9	4.9	4.9
4	4.8	4.8	4.8
5	4.8	4.8	4.8
6	0.0	0.0	0.0
7	–	–	–
8	– 37	– 38	– 35
Q9701			
B	0.5	0.5	0.5
C	4.8	4.8	4.8
E	0.0	0.0	0.0
Q9702			
B	3.1	3.4	2.4
C	– 30	– 33	– 25
E	3.7	3.9	2.9

8. TROUBLESHOOTING GUIDE

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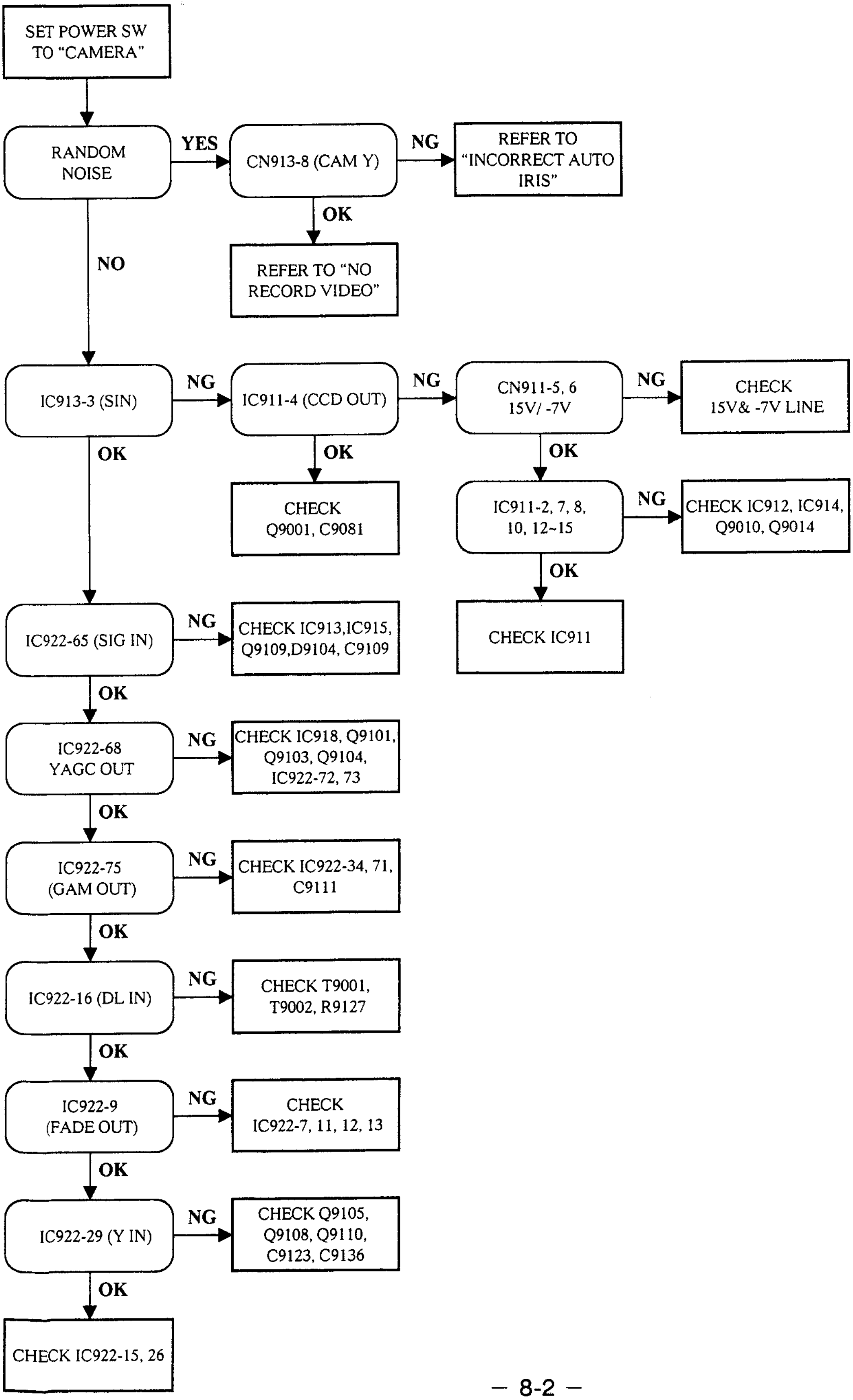
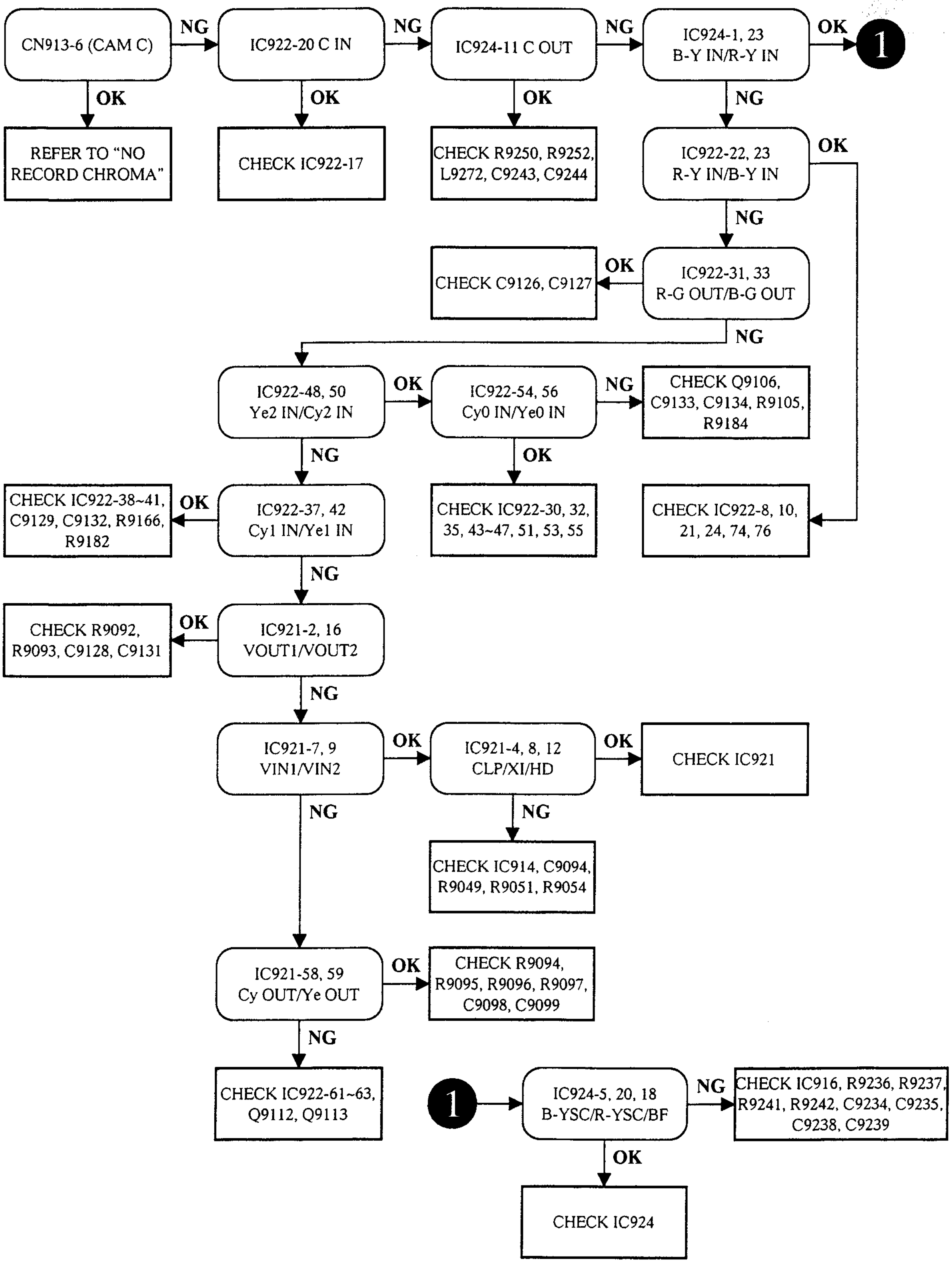
8-1. CAMERA CIRCUIT

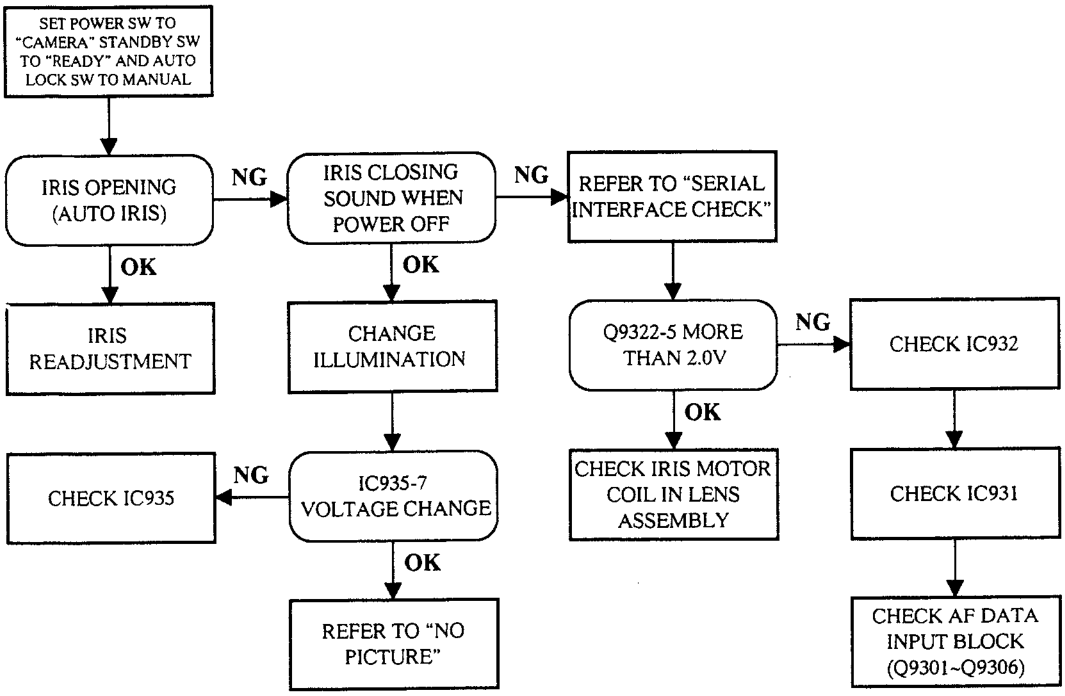
NO PICTURE


SET POWER SW TO "CAMERA"
RANDOM NOISE
YES
CN913-8 (CAM Y)
NG
REFER TO "INCORRECT AUTO IRIS"
OK
REFER TO "NO RECORD VIDEO"
NO
IC913-3 (SIN)
NG
IC911-4 (CCD OUT)
NG
CN911-5, 6 15V/ -7V
NG
CHECK 15V& -7V LINE
OK
OK
CHECK Q9001, C9081
OK
IC911-2, 7, 8, 10, 12~15
NG
CHECK IC912, IC914, Q9010, Q9014
OK
CHECK IC911
IC922-65 (SIG IN)
NG
CHECK IC913,IC915, Q9109,D9104, C9109
OK
IC922-68 YAGC OUT
NG
CHECK IC918, Q9101, Q9103, Q9104, IC922-72, 73
OK
IC922-75 (GAM OUT)
NG
CHECK IC922-34, 71, C9111
OK
IC922-16 (DL IN)
NG
CHECK T9001, T9002, R9127
OK
IC922-9 (FADE OUT)
NG
CHECK IC922-7, 11, 12, 13
OK
IC922-29 (Y IN)
NG
CHECK Q9105, Q9108, Q9110, C9123, C9136
OK
CHECK IC922-15, 26

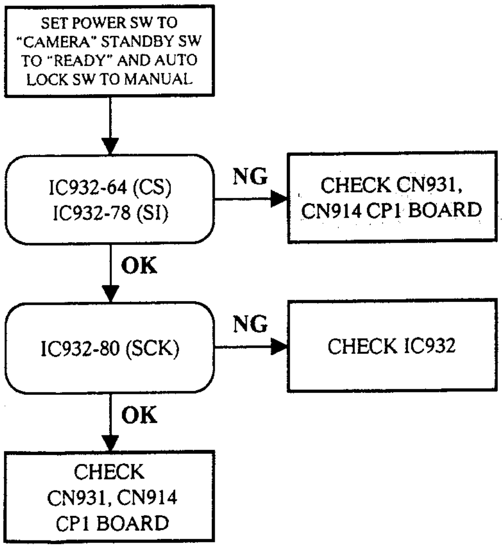
NO COLOR


CN913-6 (CAM C)
NG
IC922-20 C IN
NG
IC924-11 C OUT
NG
IC924-1, 23 B-Y IN/R-Y IN
OK
1
OK
REFER TO "NO RECORD CHROMA"
OK
CHECK IC922-17
OK
CHECK R9250, R9252, L9272, C9243, C9244
NG
IC922-22, 23 R-Y IN/B-Y IN
OK
NG
CHECK C9126, C9127
OK
IC922-31, 33 R-G OUT/B-G OUT
NG
IC922-48, 50 Ye2 IN/Cy2 IN
OK
IC922-54, 56 Cy0 IN/Ye0 IN
NG
CHECK Q9106, C9133, C9134, R9105, R9184
NG
OK
CHECK IC922-38~41, C9129, C9132, R9166, R9182
OK
IC922-37, 42 Cy1 IN/Ye1 IN
CHECK IC922-30, 32, 35, 43~47, 51, 53, 55
CHECK IC922-8, 10, 21, 24, 74, 76
NG
CHECK R9092, R9093, C9128, C9131
OK
IC921-2, 16 VOUT1/VOUT2
NG
IC921-7, 9 VIN1/VIN2
OK
IC921-4, 8, 12 CLP/XI/HD
OK
CHECK IC921
NG
NG
CHECK IC914, C9094, R9049, R9051, R9054
IC921-58, 59 Cy OUT/Ye OUT
OK
CHECK R9094, R9095, R9096, R9097, C9098, C9099
NG
CHECK IC922-61~63, Q9112, Q9113
1
IC924-5, 20, 18 B-YSC/R-YSC/BF
NG
CHECK IC916, R9236, R9237, R9241, R9242, C9234, C9235, C9238, C9239
OK
CHECK IC924

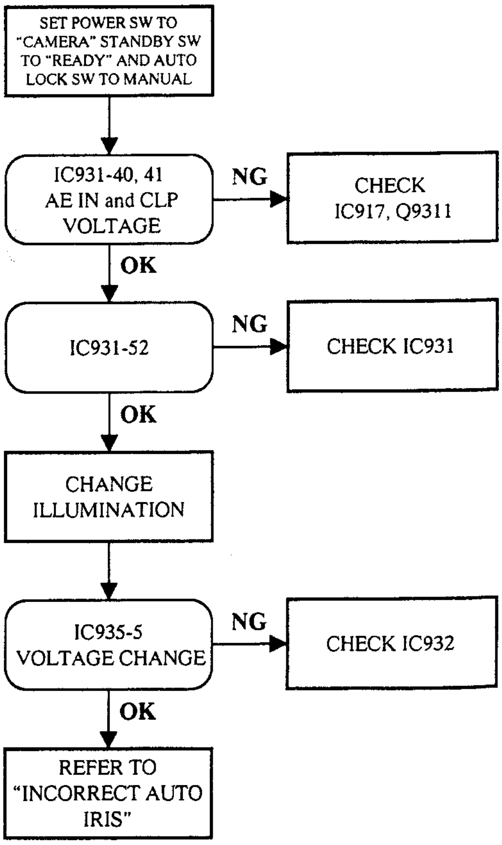
INCORRECT AUTO IRIS


SET POWER SW TO "CAMERA" STANDBY SW TO "READY" AND AUTO LOCK SW TO MANUAL
IRIS OPENING (AUTO IRIS)
NG
IRIS CLOSING SOUND WHEN POWER OFF
NG
REFER TO "SERIAL INTERFACE CHECK"
OK
IRIS READJUSTMENT
OK
CHANGE ILLUMINATION
Q9322-5 MORE THAN 2.0V
NG
CHECK IC932
OK
CHECK IC935
NG
IC935-7 VOLTAGE CHANGE
CHECK IRIS MOTOR COIL IN LENS ASSEMBLY
CHECK IC931
OK
REFER TO "NO PICTURE"
CHECK AF DATA INPUT BLOCK (Q9301~Q9306)

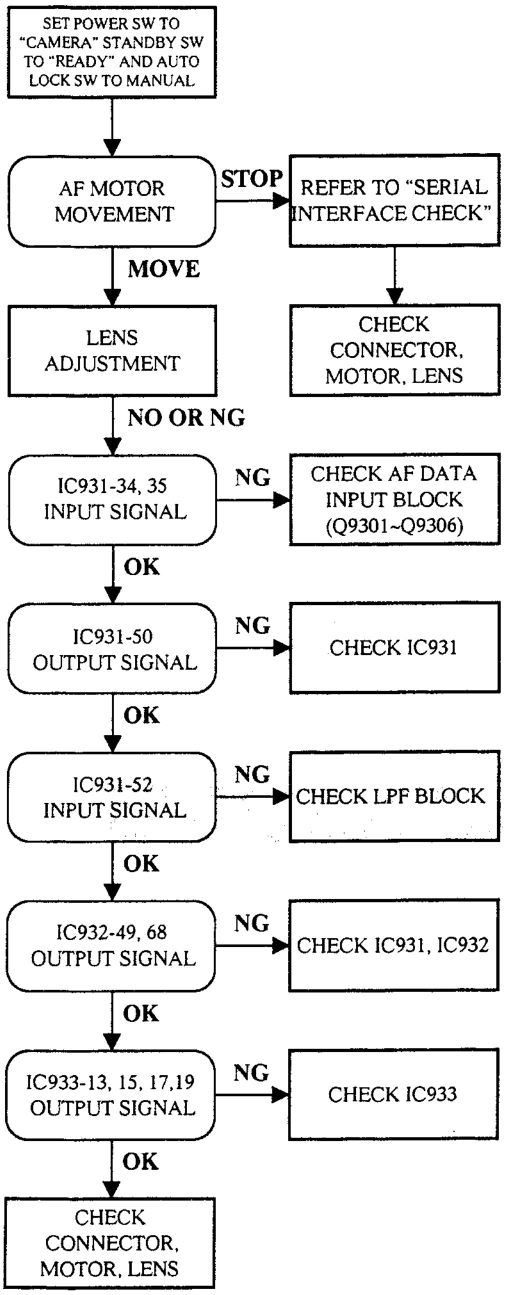
NO AF / MF CHANGE AND POWER ZOOM INOPERATIVE (SERIAL INTERFACE CHECK)


SET POWER SW TO "CAMERA" STANDBY SW TO "READY" AND AUTO LOCK SW TO MANUAL
IC932-64 (CS)
IC932-78 (SI)
NG
CHECK CN931, CN914 CP1 BOARD
OK
IC932-80 (SCK)
NG
CHECK IC932
OK
CHECK CN931, CN914 CP1 BOARD

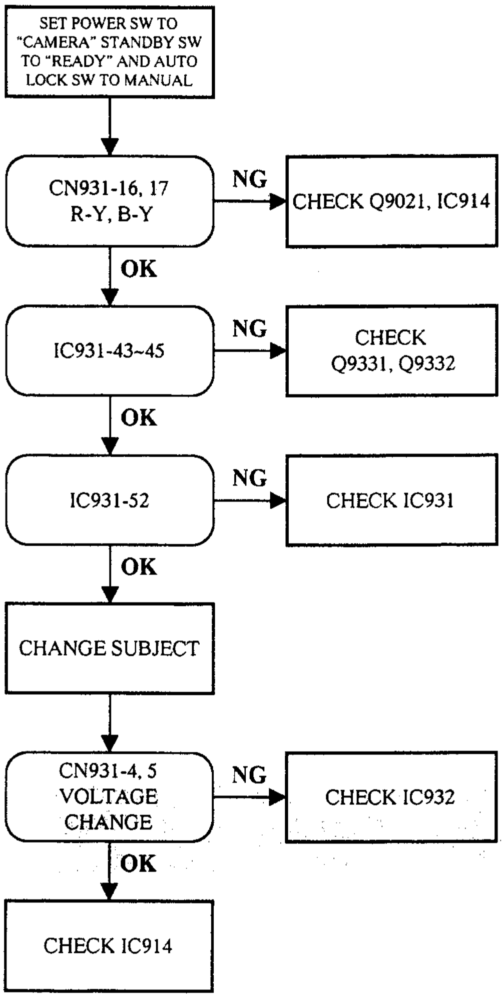
INCORRECT AUTO EXPOSURE


SET POWER SW TO "CAMERA" STANDBY SW TO "READY" AND AUTO LOCK SW TO MANUAL
IC931-40, 41 AE IN and CLP VOLTAGE
NG
CHECK IC917, Q9311
OK
IC931-52
NG
CHECK IC931
OK
CHANGE ILLUMINATION
IC935-5 VOLTAGE CHANGE
NG
CHECK IC932
OK
REFER TO "INCORRECT AUTO IRIS"

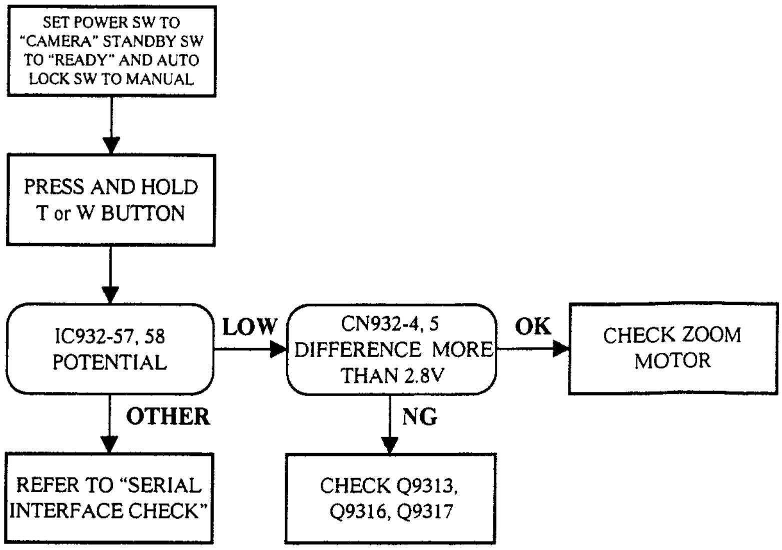
AUTO-FOCUS INOPERATIVE


SET POWER SW TO "CAMERA" STANDBY SW TO "READY" AND AUTO LOCK SW TO MANUAL
AF MOTOR MOVEMENT
STOP
REFER TO "SERIAL INTERFACE CHECK"
CHECK CONNECTOR, MOTOR, LENS
MOVE
LENS ADJUSTMENT
NO OR NG
IC931-34, 35 INPUT SIGNAL
NG
CHECK AF DATA INPUT BLOCK (Q9301~Q9306)
OK
IC931-50 OUTPUT SIGNAL
NG
CHECK IC931
OK
IC931-52 INPUT SIGNAL
NG
CHECK LPF BLOCK
OK
IC932-49, 68 OUTPUT SIGNAL
NG
CHECK IC931, IC932
OK
IC933-13, 15, 17,19 OUTPUT SIGNAL
NG
CHECK IC933
OK
CHECK CONNECTOR, MOTOR, LENS

INCORRECT AUTO WHITE BALANCE

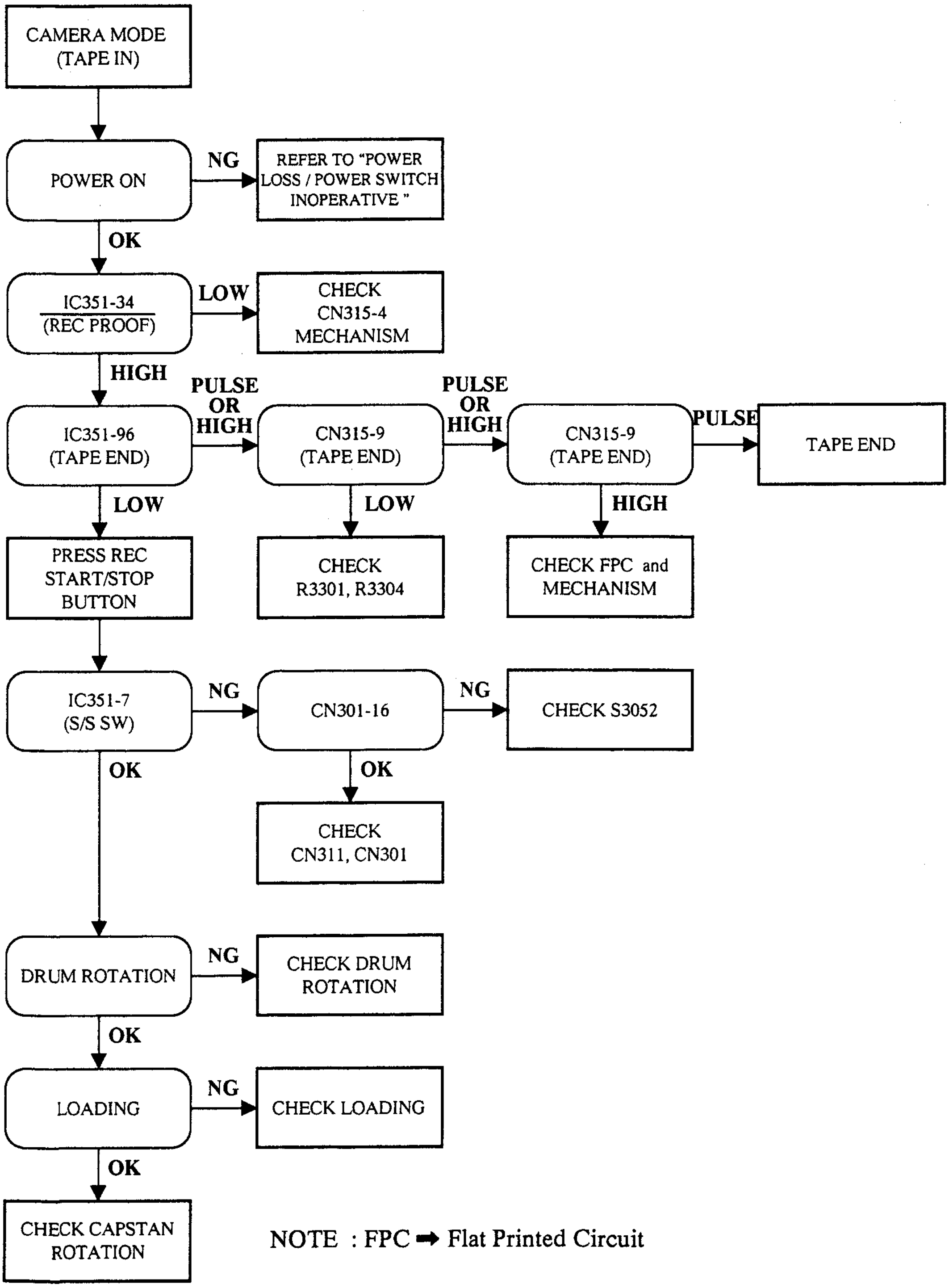

SET POWER SW TO "CAMERA" STANDBY SW TO "READY" AND AUTO LOCK SW TO MANUAL
CN931-16, 17 R-Y, B-Y
NG
CHECK Q9021, IC914
OK
IC931-43~45
NG
CHECK Q9331, Q9332
OK
IC931-52
NG
CHECK IC931
OK
CHANGE SUBJECT
CN931-4, 5 VOLTAGE CHANGE
NG
CHECK IC932
OK
CHECK IC914

POWER ZOOM INOPERATIVE


SET POWER SW TO "CAMERA" STANDBY SW TO "READY" AND AUTO LOCK SW TO MANUAL
PRESS AND HOLD T or W BUTTON
IC932-57, 58 POTENTIAL
LOW
CN932-4, 5 DIFFERENCE MORE THAN 2.8V
OK
CHECK ZOOM MOTOR
OTHER
REFER TO "SERIAL INTERFACE CHECK"
NG
CHECK Q9313, Q9316, Q9317

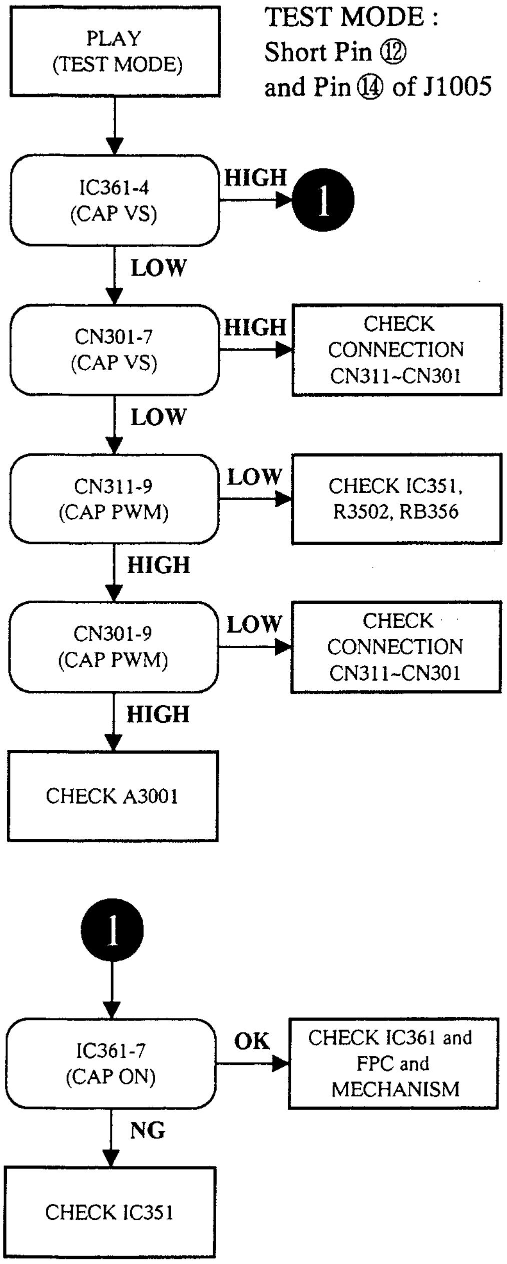
8-2. SERVO/SYSTEM CONTROL CIRCUIT

RECORD MODE INOPERATIVE


CAMERA MODE (TAPE IN)
POWER ON
NG
REFER TO "POWER LOSS / POWER SWITCH INOPERATIVE "
OK
IC351-34 (REC PROOF)
LOW
CHECK CN315-4 MECHANISM
HIGH
IC351-96 (TAPE END)
PULSE OR HIGH
CN315-9 (TAPE END)
PULSE OR HIGH
CN315-9 (TAPE END)
PULSE
TAPE END
LOW
PRESS REC START/STOP BUTTON
LOW
CHECK R3301, R3304
HIGH
CHECK FPC and MECHANISM
IC351-7 (S/S SW)
NG
CN301-16
NG
CHECK S3052
OK
OK
CHECK CN311, CN301
DRUM ROTATION
NG
CHECK DRUM ROTATION
OK
LOADING
NG
CHECK LOADING
OK
CHECK CAPSTAN ROTATION

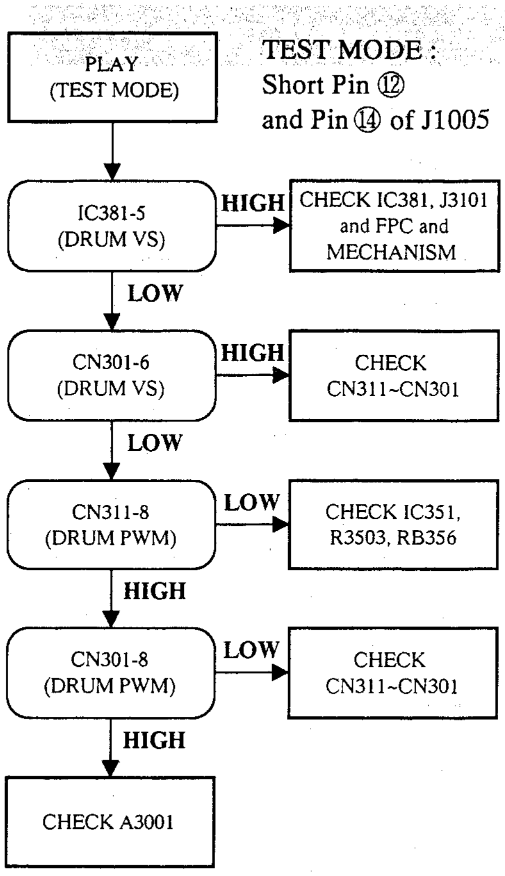
NOTE : FPC ➡ Flat Printed Circuit

CAPSTAN DOES NOT ROTATE


TEST MODE :
Short Pin ⑫
and Pin ⑭ of J1005

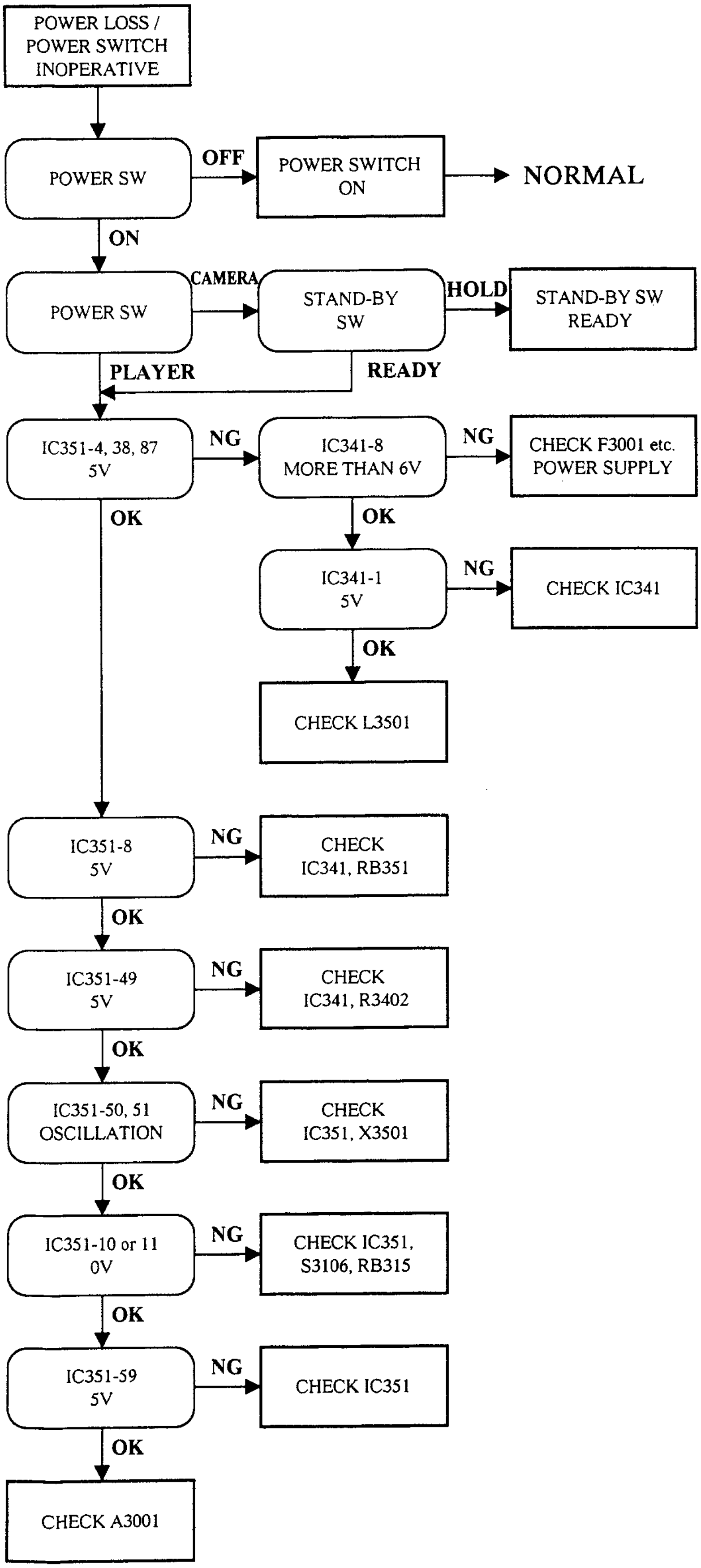
PLAY (TEST MODE)
IC361-4 (CAP VS)
HIGH
1
LOW
CN301-7 (CAP VS)
HIGH
CHECK CONNECTION CN311~CN301
LOW
CN311-9 (CAP PWM)
LOW
CHECK IC351, R3502, RB356
HIGH
CN301-9 (CAP PWM)
LOW
CHECK CONNECTION CN311~CN301
HIGH
CHECK A3001
1
IC361-7 (CAP ON)
OK
CHECK IC361 and FPC and MECHANISM
NG
CHECK IC351

DRUM DOES NOT ROTATE

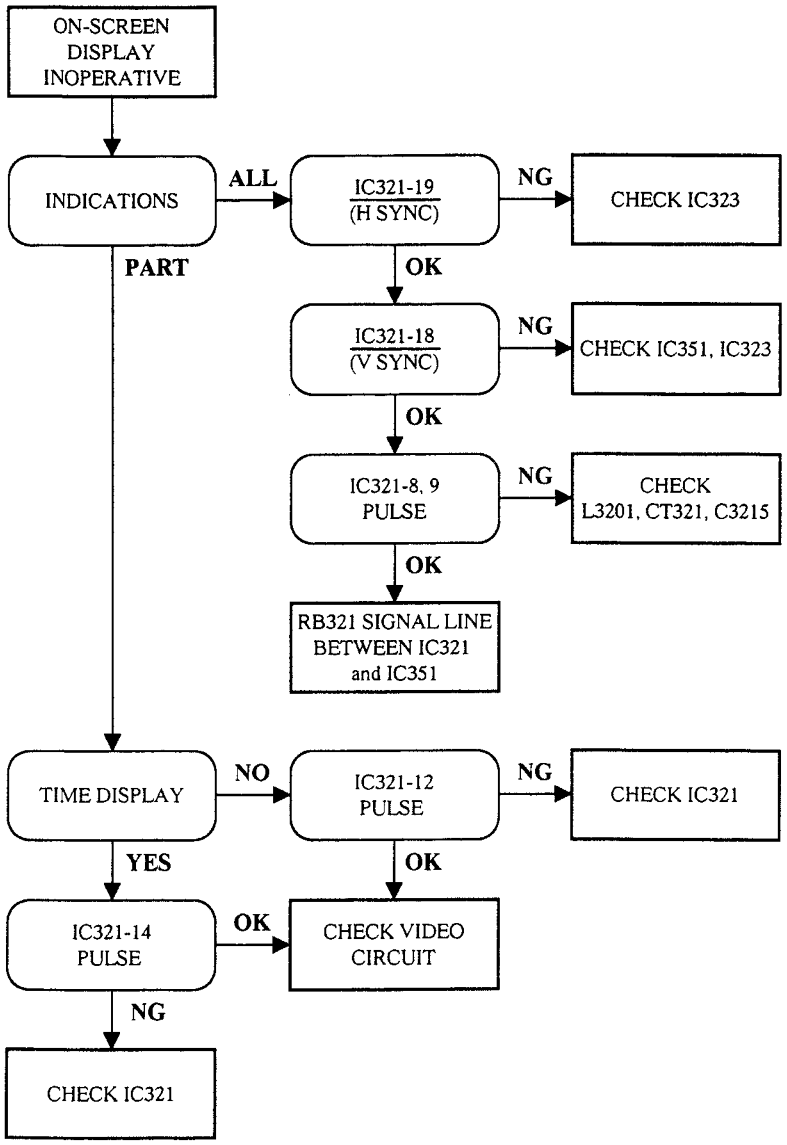

TEST MODE :
Short Pin ⑫
and Pin ⑭ of J1005

PLAY (TEST MODE)
IC381-5 (DRUM VS)
HIGH
CHECK IC381, J3101 and FPC and MECHANISM
LOW
CN301-6 (DRUM VS)
HIGH
CHECK CN311~CN301
LOW
CN311-8 (DRUM PWM)
LOW
CHECK IC351, R3503, RB356
HIGH
CN301-8 (DRUM PWM)
LOW
CHECK CN311~CN301
HIGH
CHECK A3001

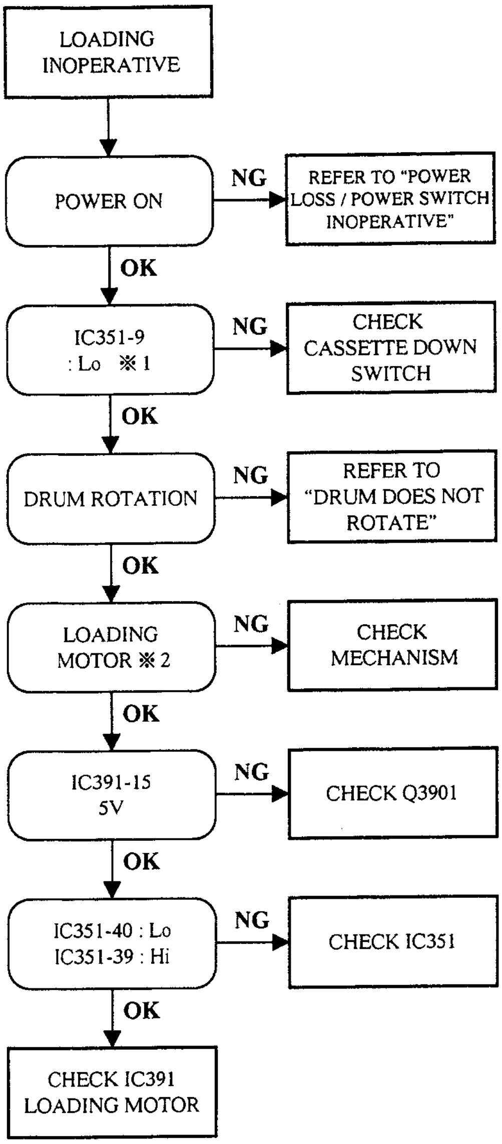
POWER LOSS / POWER SWITCH INOPERATIVE


POWER LOSS / POWER SWITCH INOPERATIVE
POWER SW
OFF
POWER SWITCH ON
NORMAL
ON
POWER SW
CAMERA
STAND-BY SW
HOLD
STAND-BY SW READY
PLAYER
READY
IC351-4, 38, 87 5V
NG
IC341-8 MORE THAN 6V
NG
CHECK F3001 etc. POWER SUPPLY
OK
OK
IC341-1 5V
NG
CHECK IC341
OK
CHECK L3501
IC351-8 5V
NG
CHECK IC341, RB351
OK
IC351-49 5V
NG
CHECK IC341, R3402
OK
IC351-50, 51 OSCILLATION
NG
CHECK IC351, X3501
OK
IC351-10 or 11 0V
NG
CHECK IC351, S3106, RB315
OK
IC351-59 5V
NG
CHECK IC351
OK
CHECK A3001

ON-SCREEN DISPLAY INOPERATIVE


ON-SCREEN DISPLAY INOPERATIVE
INDICATIONS
ALL
IC321-19 (H SYNC)
NG
CHECK IC323
OK
IC321-18 (V SYNC)
NG
CHECK IC351, IC323
OK
IC321-8, 9 PULSE
NG
CHECK L3201, CT321, C3215
OK
RB321 SIGNAL LINE BETWEEN IC321 and IC351
PART
TIME DISPLAY
NO
IC321-12 PULSE
NG
CHECK IC321
OK
CHECK VIDEO CIRCUIT
YES
IC321-14 PULSE
OK
NG
CHECK IC321

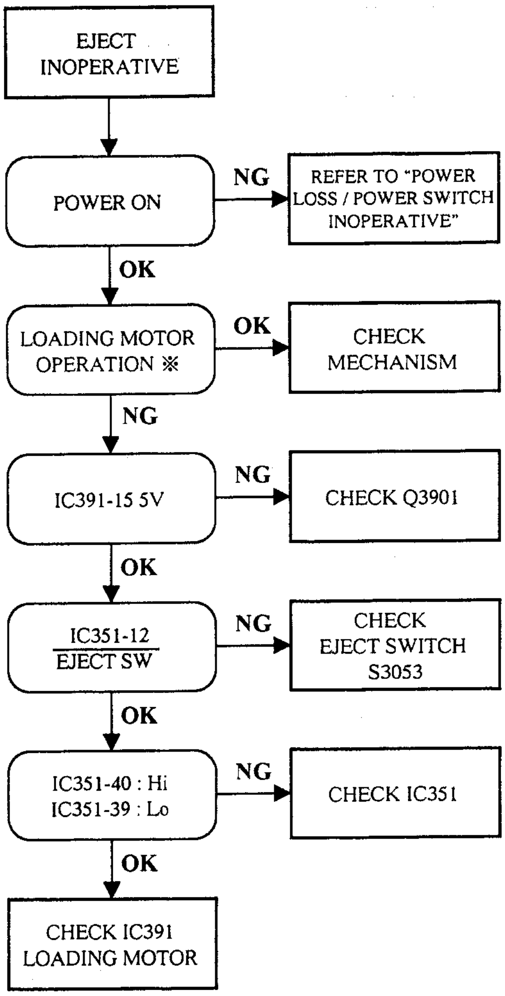
LOADING INOPERATIVE


LOADING INOPERATIVE
POWER ON
NG
REFER TO "POWER LOSS / POWER SWITCH INOPERATIVE"
OK
IC351-9 : Lo ※1
NG
CHECK CASSETTE DOWN SWITCH
OK
DRUM ROTATION
NG
REFER TO "DRUM DOES NOT ROTATE"
OK
LOADING MOTOR ※2
NG
CHECK MECHANISM
OK
IC391-15 5V
NG
CHECK Q3901
OK
IC351-40 : Lo
IC351-39 : Hi
NG
CHECK IC351
OK
CHECK IC391 LOADING MOTOR

※1 IC351-9 Hi : Cassette holder up
Lo : Cassette holder down

※2 Loading Motor starts loading
when cassette holder is down.

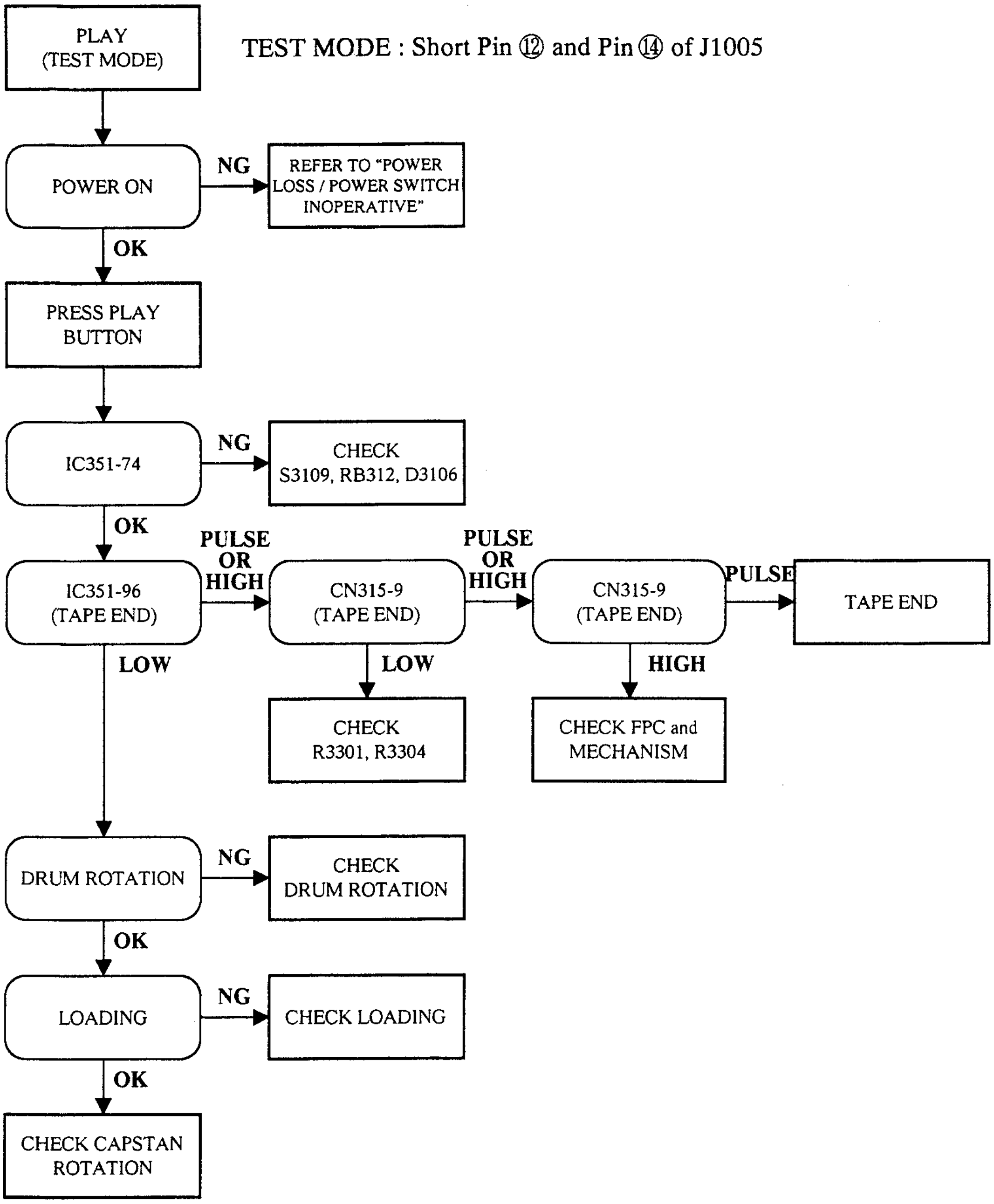
EJECT INOPERATIVE


EJECT INOPERATIVE
POWER ON
NG
REFER TO "POWER LOSS / POWER SWITCH INOPERATIVE"
OK
LOADING MOTOR OPERATION ※
OK
CHECK MECHANISM
NG
IC391-15 5V
NG
CHECK Q3901
OK
IC351-12
EJECT SW
NG
CHECK EJECT SWITCH S3053
OK
IC351-40 : Hi
IC351-39 : Lo
NG
CHECK IC351
OK
CHECK IC391 LOADING MOTOR

※ Loading Motor starts unloading
when EJECT BUTTON is pressed.

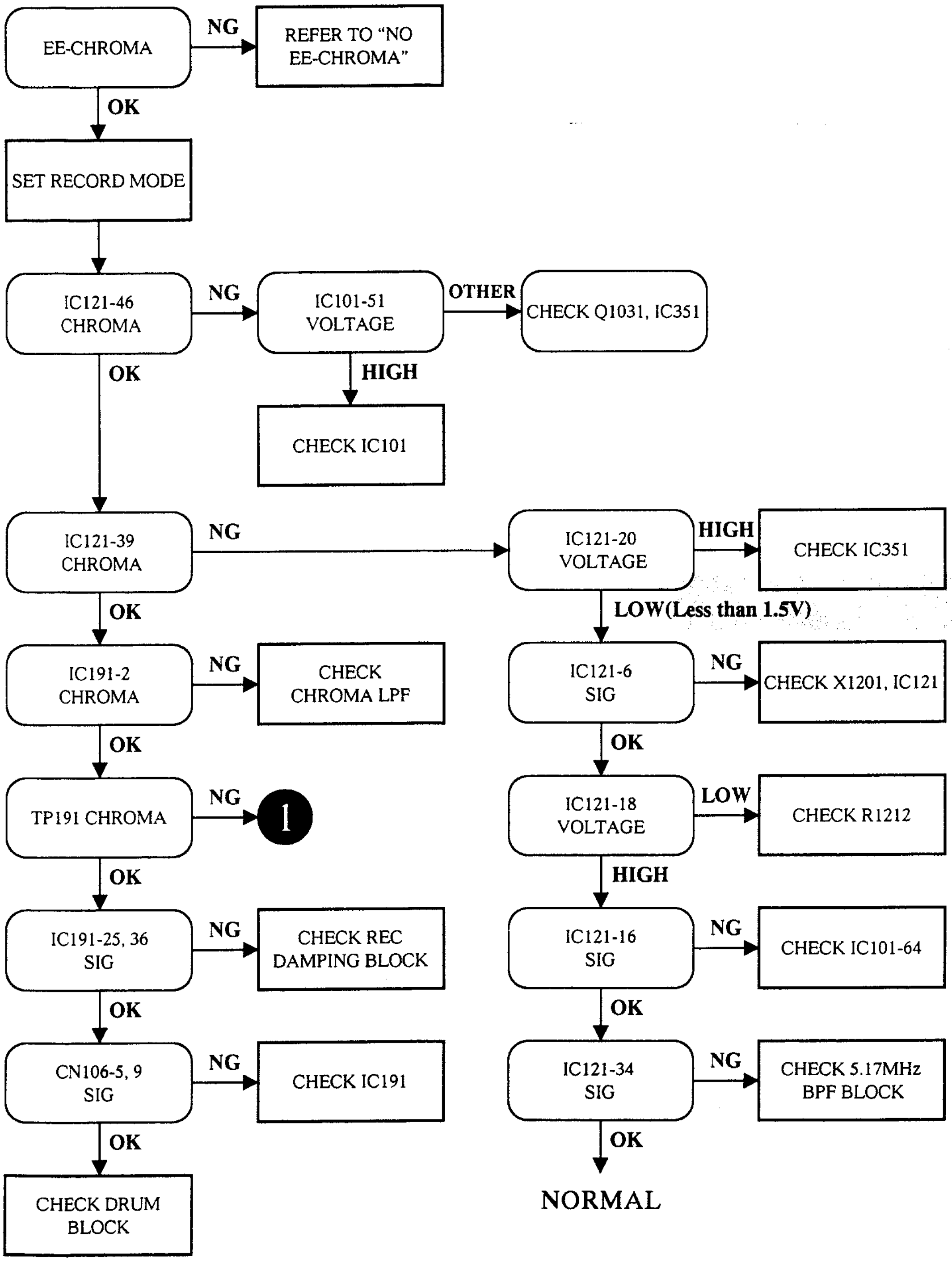
PLAY MODE INOPERATIVE

TEST MODE : Short Pin ⑫ and Pin ⑭ of J1005

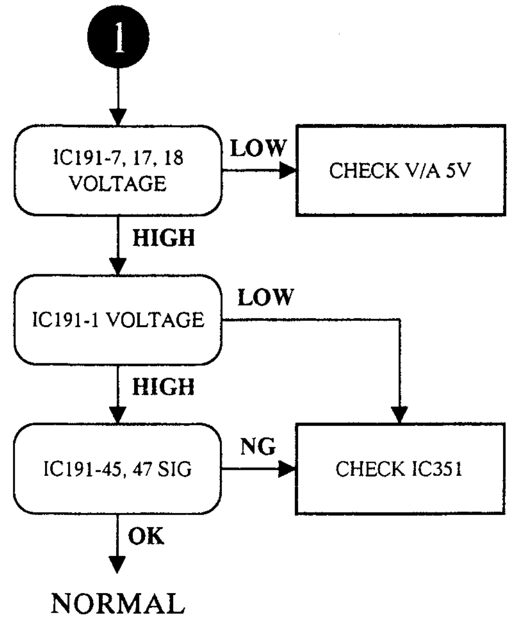

PLAY
(TEST MODE)
POWER ON
NG
REFER TO "POWER LOSS / POWER SWITCH INOPERATIVE"
OK
PRESS PLAY BUTTON
IC351-74
NG
CHECK S3109, RB312, D3106
OK
IC351-96 (TAPE END)
PULSE OR HIGH
CN315-9 (TAPE END)
PULSE OR HIGH
CN315-9 (TAPE END)
PULSE
TAPE END
LOW
LOW
CHECK R3301, R3304
HIGH
CHECK FPC and MECHANISM
DRUM ROTATION
NG
CHECK DRUM ROTATION
OK
LOADING
NG
CHECK LOADING
OK
CHECK CAPSTAN ROTATION

8-3. VIDEO CIRCUIT

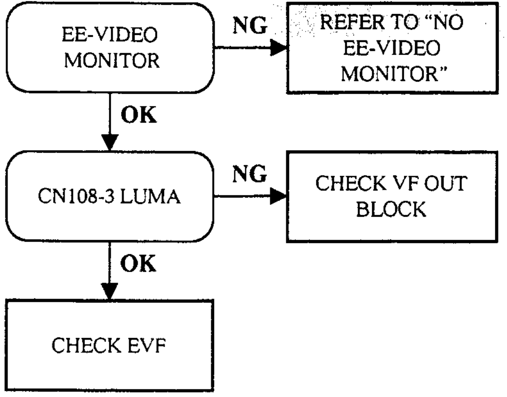
NO RECORD CHROMA


EE-CHROMA
NG
REFER TO "NO EE-CHROMA"
OK
SET RECORD MODE
IC121-46 CHROMA
NG
IC101-51 VOLTAGE
OTHER
CHECK Q1031, IC351
HIGH
CHECK IC101
OK
IC121-39 CHROMA
NG
IC121-20 VOLTAGE
HIGH
CHECK IC351
LOW(Less than 1.5V)
OK
IC191-2 CHROMA
NG
CHECK CHROMA LPF
IC121-6 SIG
NG
CHECK X1201, IC121
OK
TP191 CHROMA
NG
1
IC121-18 VOLTAGE
LOW
CHECK R1212
HIGH
OK
IC191-25, 36 SIG
NG
CHECK REC DAMPING BLOCK
IC121-16 SIG
NG
CHECK IC101-64
OK
CN106-5, 9 SIG
NG
CHECK IC191
IC121-34 SIG
NG
CHECK 5.17MHz BPF BLOCK
OK
CHECK DRUM BLOCK
OK
NORMAL

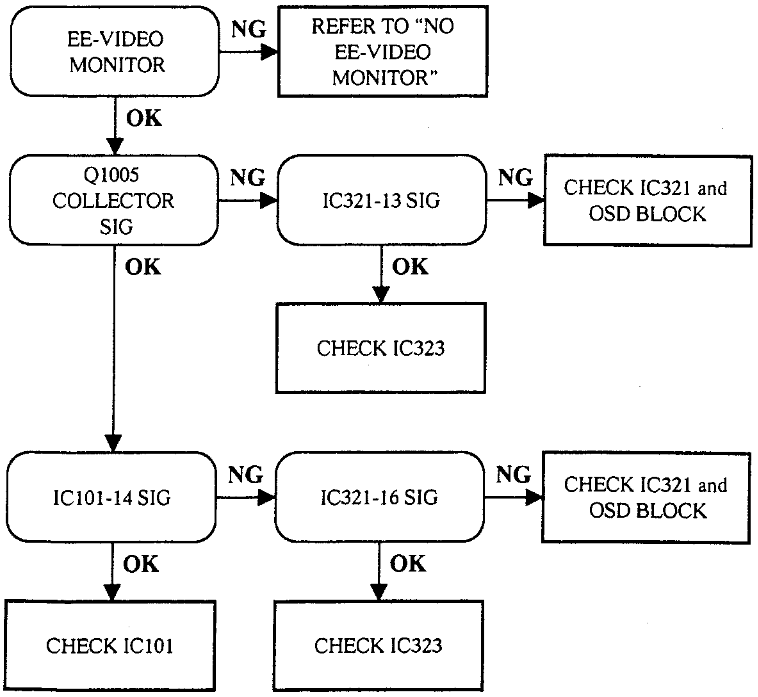
NO RECORD CHROMA (Continued)


1
IC191-7, 17, 18 VOLTAGE
LOW
CHECK V/A 5V
HIGH
IC191-1 VOLTAGE
LOW
HIGH
IC191-45, 47 SIG
NG
CHECK IC351
OK
NORMAL

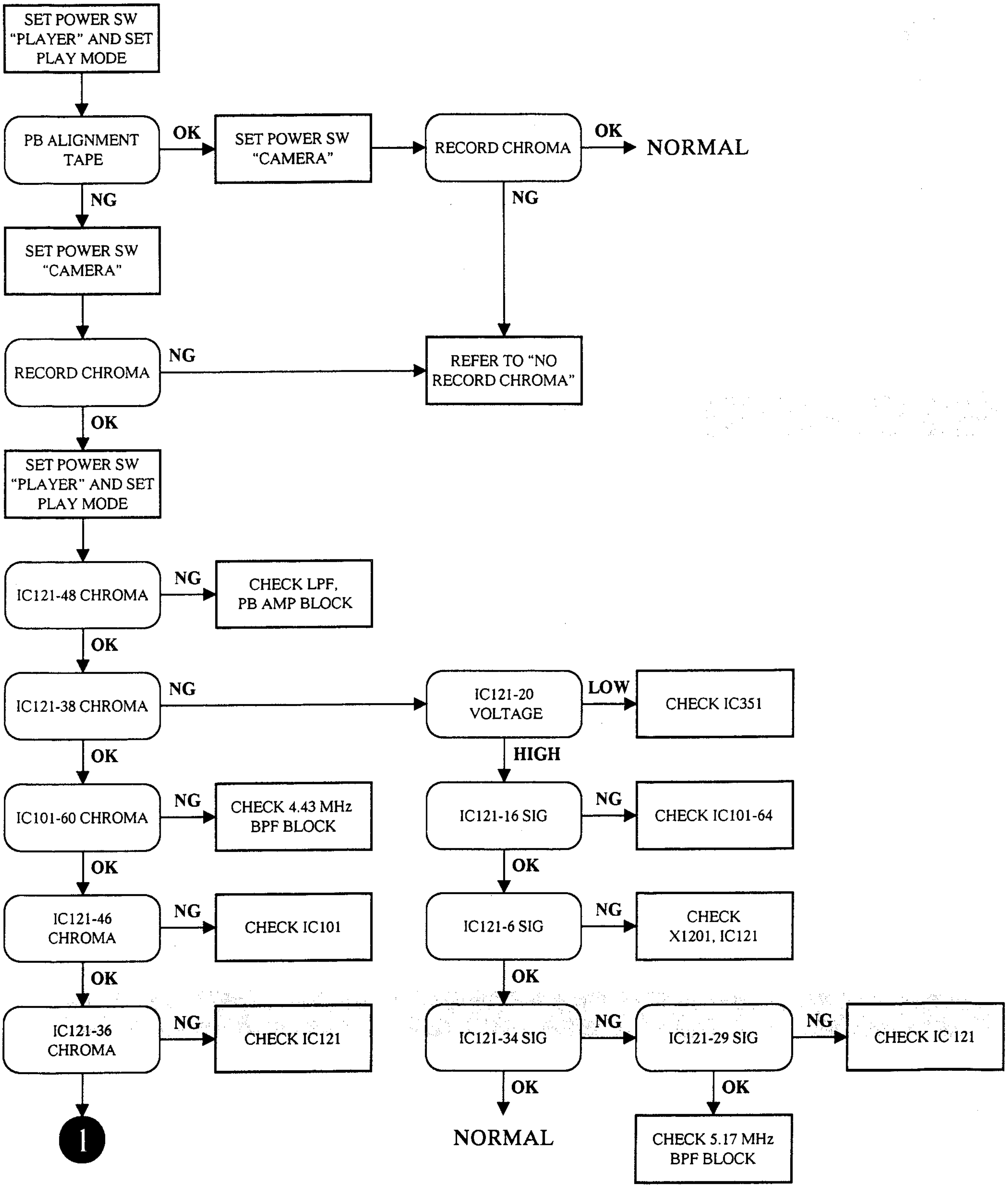
NO PICTURE IN EVF


EE-VIDEO MONITOR
NG
REFER TO "NO EE-VIDEO MONITOR"
OK
CN108-3 LUMA
NG
CHECK VF OUT BLOCK
OK
CHECK EVF

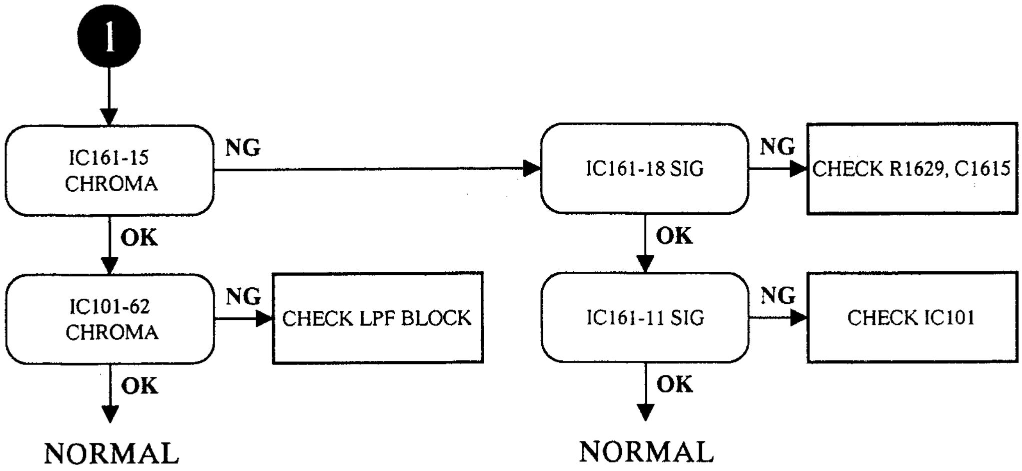
ON-SCREEN DISPLAY INOPERATIVE


EE-VIDEO MONITOR
NG
REFER TO "NO EE-VIDEO MONITOR"
OK
Q1005 COLLECTOR SIG
NG
IC321-13 SIG
NG
CHECK IC321 and OSD BLOCK
OK
CHECK IC323
OK
IC101-14 SIG
NG
IC321-16 SIG
NG
CHECK IC321 and OSD BLOCK
OK
CHECK IC101
OK
CHECK IC323

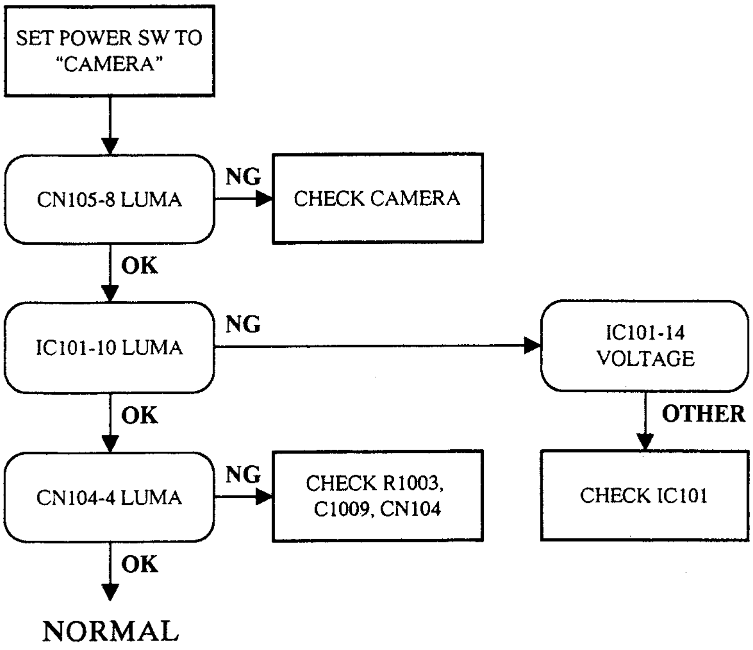
NO PLAY CHROMA


SET POWER SW "PLAYER" AND SET PLAY MODE
PB ALIGNMENT TAPE
OK
SET POWER SW "CAMERA"
RECORD CHROMA
OK
NORMAL
NG
NG
SET POWER SW "CAMERA"
RECORD CHROMA
NG
REFER TO "NO RECORD CHROMA"
OK
SET POWER SW "PLAYER" AND SET PLAY MODE
IC121-48 CHROMA
NG
CHECK LPF, PB AMP BLOCK
OK
IC121-38 CHROMA
NG
IC121-20 VOLTAGE
LOW
CHECK IC351
OK
HIGH
IC101-60 CHROMA
NG
CHECK 4.43 MHz BPF BLOCK
IC121-16 SIG
NG
CHECK IC101-64
OK
OK
IC121-46 CHROMA
NG
CHECK IC101
IC121-6 SIG
NG
CHECK X1201, IC121
OK
OK
IC121-36 CHROMA
NG
CHECK IC121
IC121-34 SIG
NG
IC121-29 SIG
NG
CHECK IC 121
OK
OK
1
NORMAL
CHECK 5.17 MHz BPF BLOCK

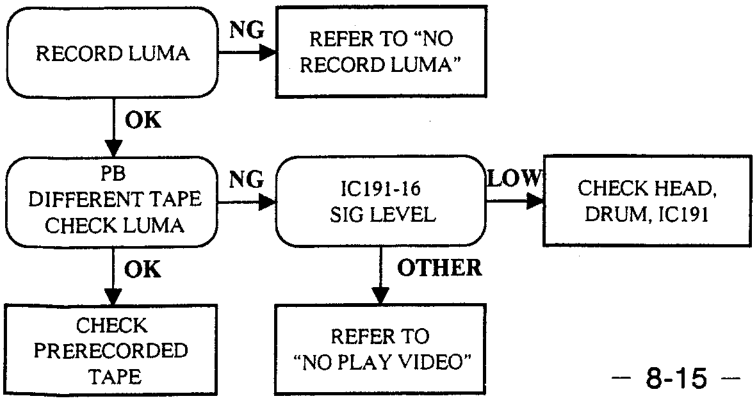
NO PLAY CHROMA (Continued)


1
IC161-15 CHROMA
NG
IC161-18 SIG
NG
CHECK R1629, C1615
OK
OK
IC101-62 CHROMA
NG
CHECK LPF BLOCK
IC161-11 SIG
NG
CHECK IC101
OK
OK
NORMAL
NORMAL

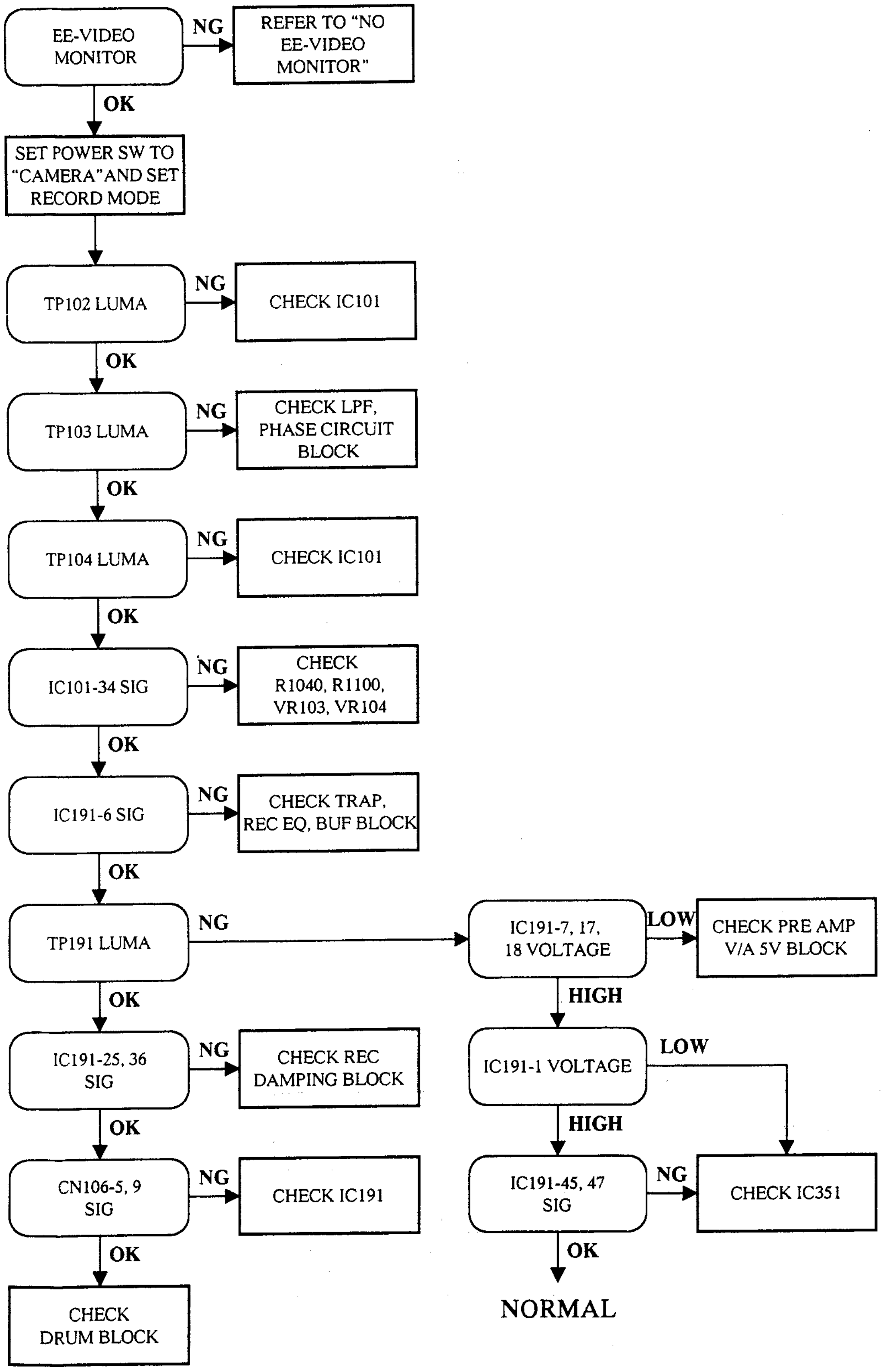
NO EE-VIDEO MONITOR


SET POWER SW TO "CAMERA"
CN105-8 LUMA
NG
CHECK CAMERA
OK
IC101-10 LUMA
NG
IC101-14 VOLTAGE
OK
OTHER
CN104-4 LUMA
NG
CHECK R1003, C1009, CN104
CHECK IC101
OK
NORMAL

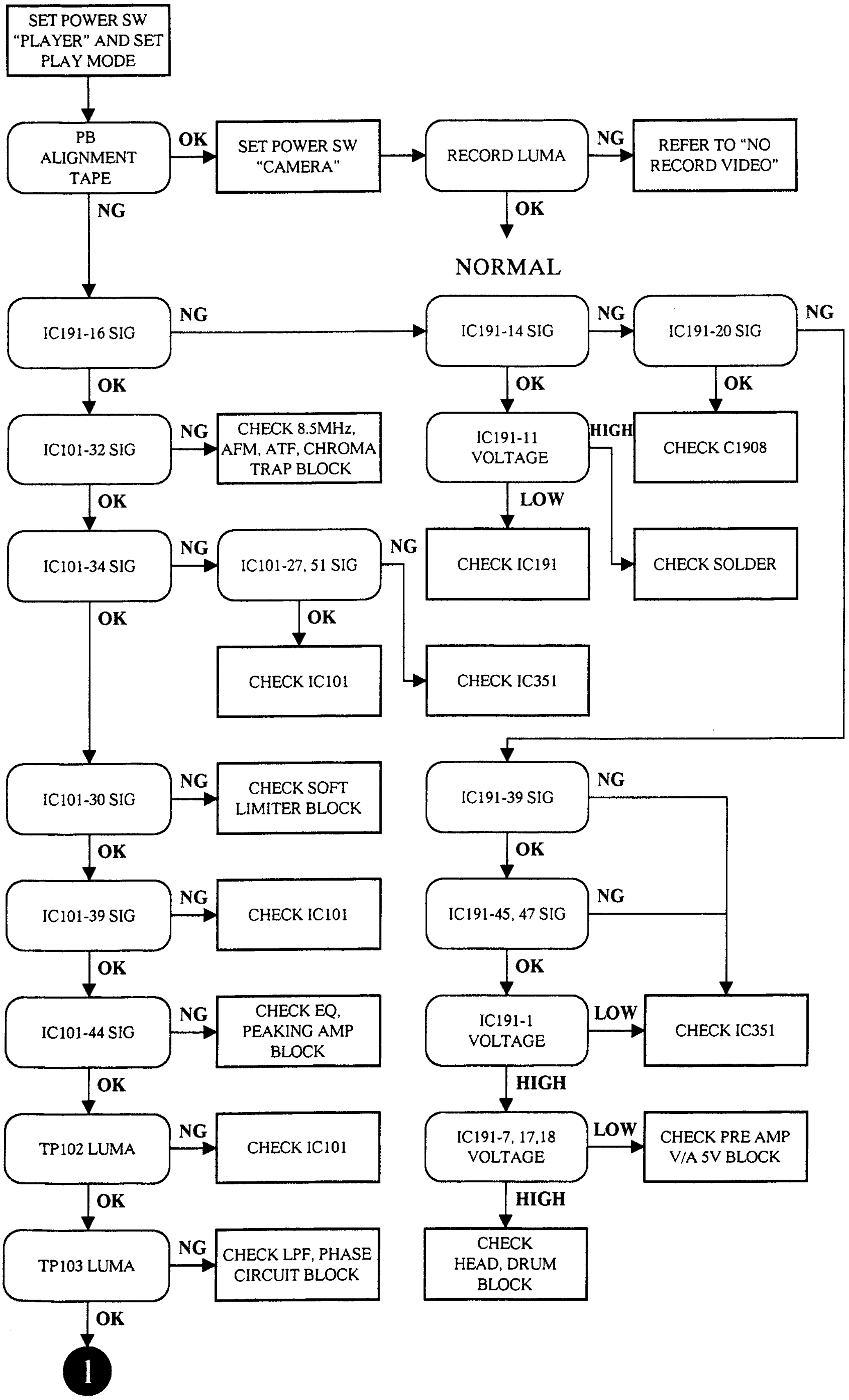
NOISY PICTURE ONLY WHEN PRERECORDED (ALIGNMENT) TAPE IS PLAYED BACK


RECORD LUMA
NG
REFER TO "NO RECORD LUMA"
OK
PB DIFFERENT TAPE CHECK LUMA
NG
IC191-16 SIG LEVEL
LOW
CHECK HEAD, DRUM, IC191
OK
OTHER
CHECK PRERECORDED TAPE
REFER TO "NO PLAY VIDEO"

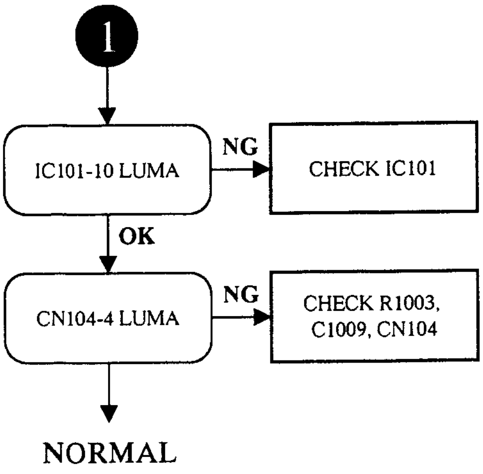
NO RECORD VIDEO


EE-VIDEO MONITOR
NG
REFER TO "NO EE-VIDEO MONITOR"
OK
SET POWER SW TO "CAMERA" AND SET RECORD MODE
TP102 LUMA
NG
CHECK IC101
OK
TP103 LUMA
NG
CHECK LPF, PHASE CIRCUIT BLOCK
OK
TP104 LUMA
NG
CHECK IC101
OK
IC101-34 SIG
NG
CHECK R1040, R1100, VR103, VR104
OK
IC191-6 SIG
NG
CHECK TRAP, REC EQ, BUF BLOCK
OK
TP191 LUMA
NG
IC191-7, 17, 18 VOLTAGE
LOW
CHECK PRE AMP V/A 5V BLOCK
HIGH
OK
IC191-25, 36 SIG
NG
CHECK REC DAMPING BLOCK
IC191-1 VOLTAGE
LOW
HIGH
OK
CN106-5, 9 SIG
NG
CHECK IC191
IC191-45, 47 SIG
NG
CHECK IC351
OK
OK
CHECK DRUM BLOCK
NORMAL

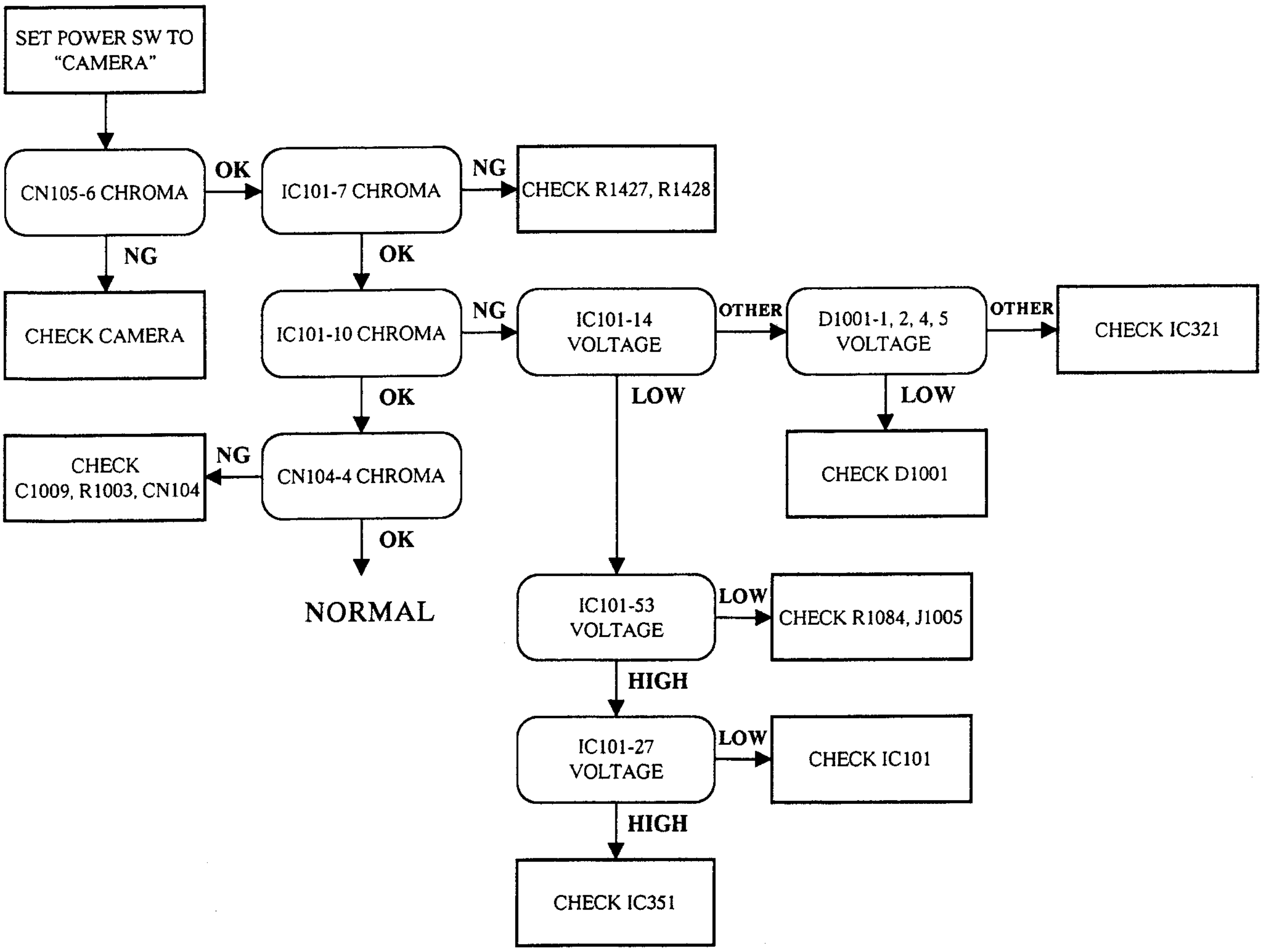
NO PLAY VIDEO


SET POWER SW "PLAYER" AND SET PLAY MODE
PB ALIGNMENT TAPE
OK
SET POWER SW "CAMERA"
RECORD LUMA
NG
REFER TO "NO RECORD VIDEO"
OK
NORMAL
NG
IC191-16 SIG
NG
IC191-14 SIG
NG
IC191-20 SIG
NG
OK
OK
OK
IC101-32 SIG
NG
CHECK 8.5MHz, AFM, ATF, CHROMA TRAP BLOCK
IC191-11 VOLTAGE
HIGH
CHECK C1908
OK
LOW
IC101-34 SIG
NG
IC101-27, 51 SIG
NG
CHECK IC191
CHECK SOLDER
OK
OK
CHECK IC101
CHECK IC351
IC101-30 SIG
NG
CHECK SOFT LIMITER BLOCK
IC191-39 SIG
NG
OK
OK
IC101-39 SIG
NG
CHECK IC101
IC191-45, 47 SIG
NG
OK
OK
IC101-44 SIG
NG
CHECK EQ, PEAKING AMP BLOCK
IC191-1 VOLTAGE
LOW
CHECK IC351
OK
HIGH
TP102 LUMA
NG
CHECK IC101
IC191-7, 17,18 VOLTAGE
LOW
CHECK PRE AMP V/A 5V BLOCK
OK
HIGH
TP103 LUMA
NG
CHECK LPF, PHASE CIRCUIT BLOCK
CHECK HEAD, DRUM BLOCK
OK
1

NO PLAY VIDEO (Continued)

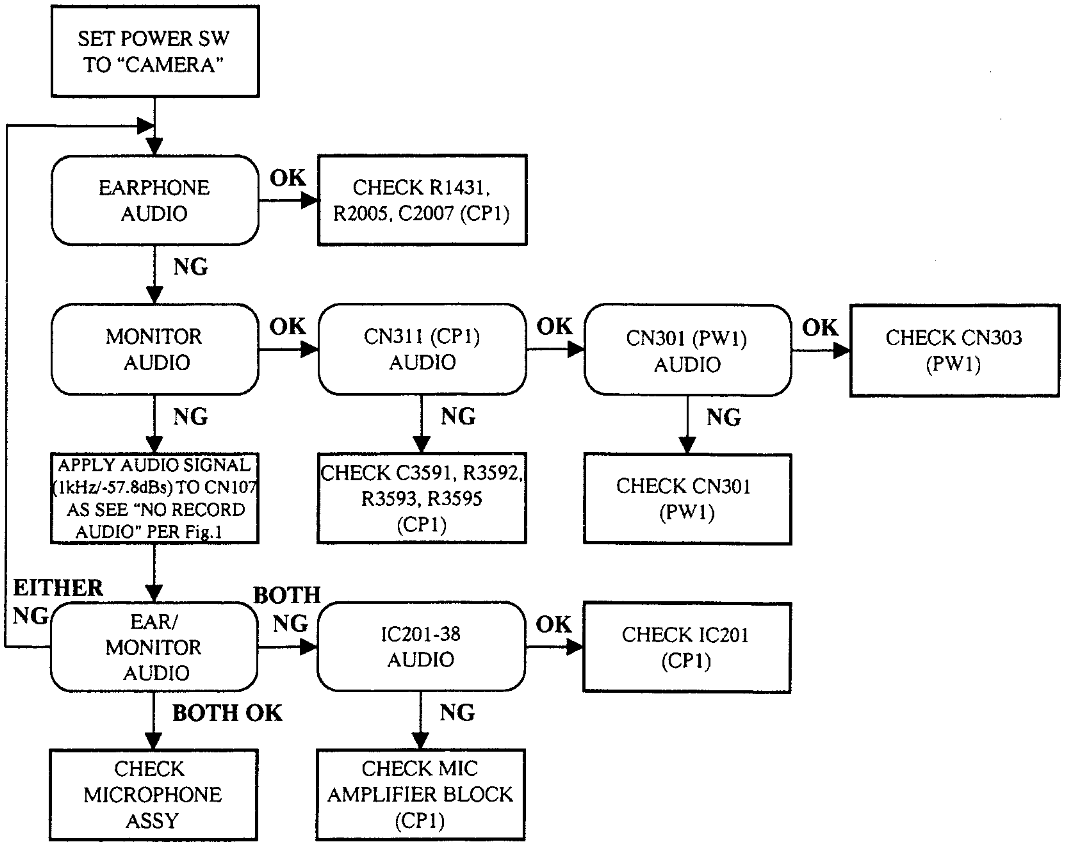

1
IC101-10 LUMA
NG
CHECK IC101
OK
CN104-4 LUMA
NG
CHECK R1003, C1009, CN104
NORMAL

NO EE-CHROMA


SET POWER SW TO "CAMERA"
CN105-6 CHROMA
OK
IC101-7 CHROMA
NG
CHECK R1427, R1428
NG
CHECK CAMERA
OK
IC101-10 CHROMA
NG
IC101-14 VOLTAGE
OTHER
D1001-1, 2, 4, 5 VOLTAGE
OTHER
CHECK IC321
LOW
LOW
CHECK D1001
OK
CHECK C1009, R1003, CN104
NG
CN104-4 CHROMA
OK
NORMAL
IC101-53 VOLTAGE
LOW
CHECK R1084, J1005
HIGH
IC101-27 VOLTAGE
LOW
CHECK IC101
HIGH
CHECK IC351

8-4. AUDIO CIRCUIT

NO EE-AUDIO


SET POWER SW TO "CAMERA"
EARPHONE AUDIO
OK
CHECK R1431, R2005, C2007 (CP1)
NG
MONITOR AUDIO
OK
CN311 (CP1) AUDIO
OK
CN301 (PW1) AUDIO
OK
CHECK CN303 (PW1)
NG
APPLY AUDIO SIGNAL (1kHz/-57.8dBs) TO CN107 AS SEE "NO RECORD AUDIO" PER Fig.1
NG
CHECK C3591, R3592, R3593, R3595 (CP1)
NG
CHECK CN301 (PW1)
EITHER NG
EAR/ MONITOR AUDIO
BOTH NG
IC201-38 AUDIO
OK
CHECK IC201 (CP1)
BOTH OK
CHECK MICROPHONE ASSY
NG
CHECK MIC AMPLIFIER BLOCK (CP1)

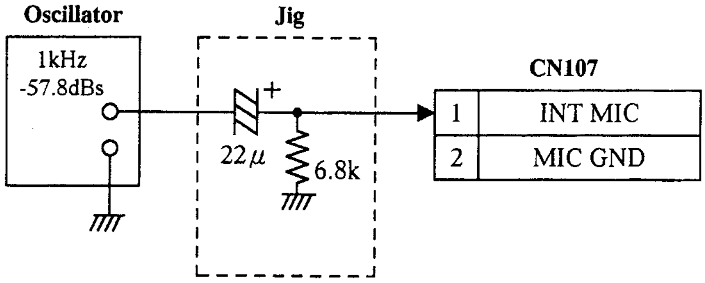
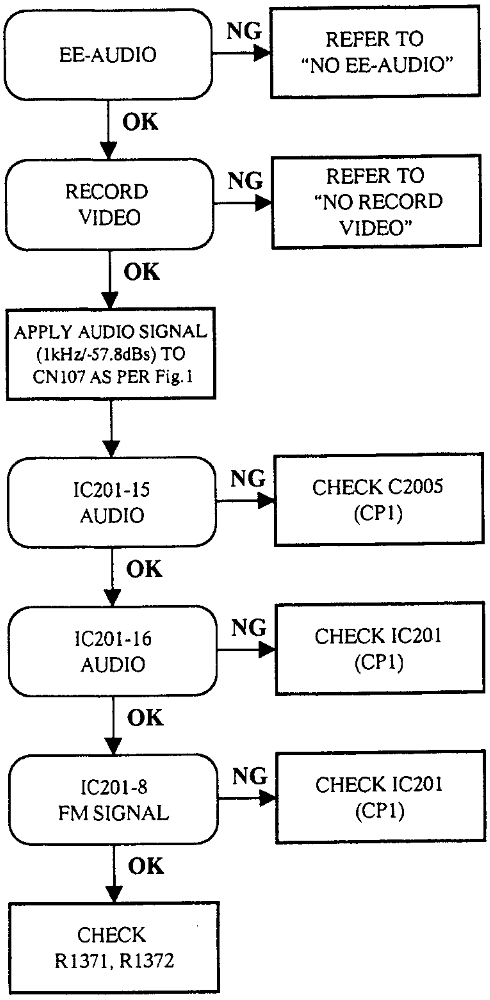
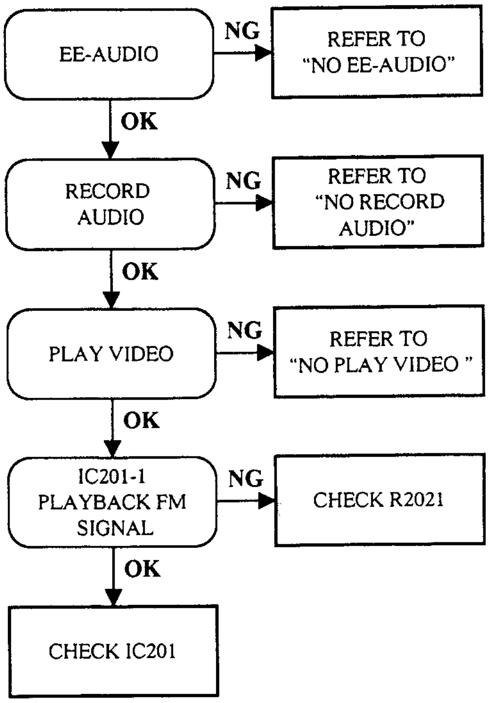

Oscillator
1kHz
-57.8dBs
Jig
+
22μ
6.8k
CN107
1
INT MIC
2
MIC GND

Fig.1

NO RECORD AUDIO

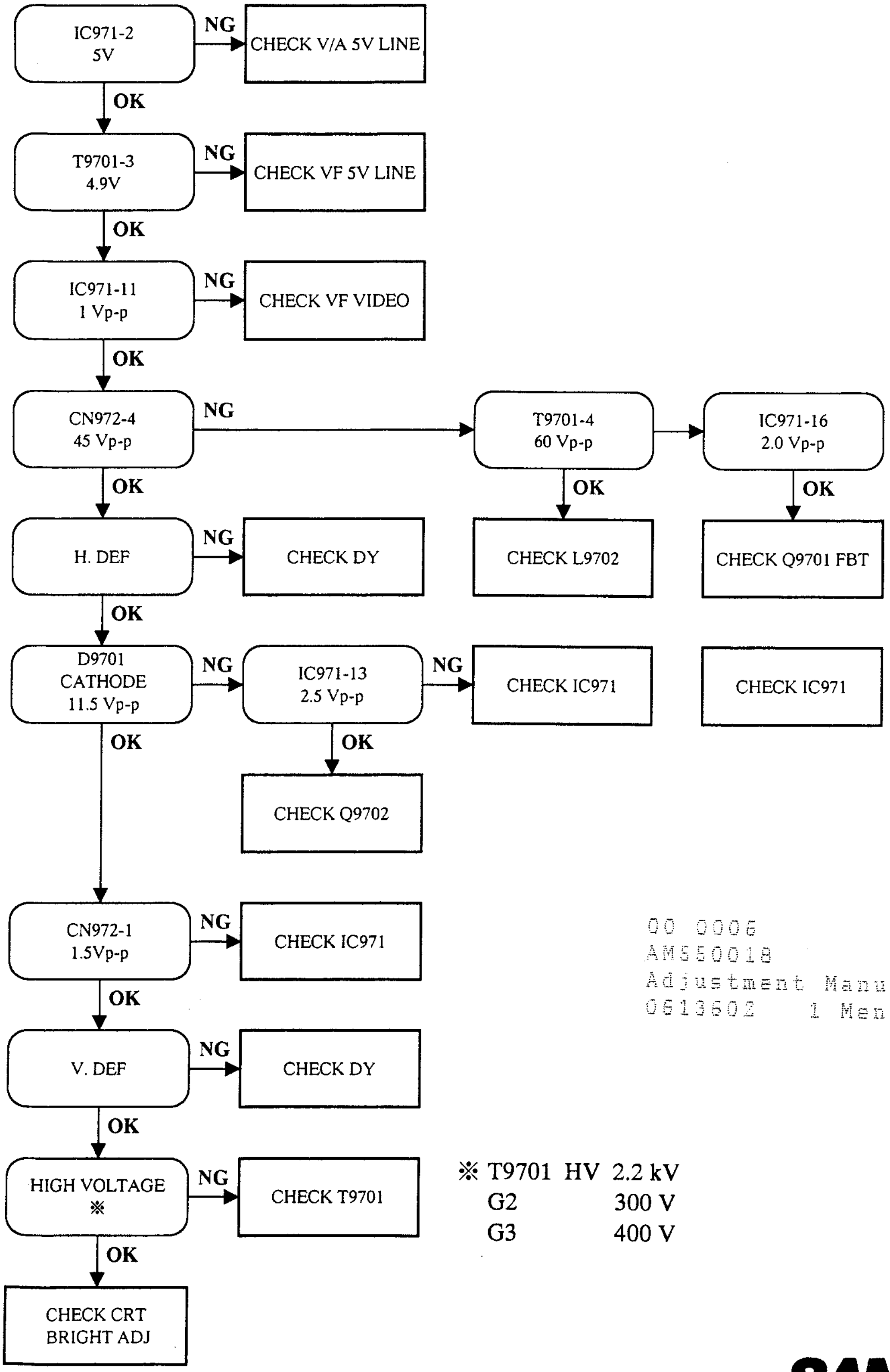

EE-AUDIO
NG
REFER TO "NO EE-AUDIO"
OK
RECORD VIDEO
NG
REFER TO "NO RECORD VIDEO"
OK
APPLY AUDIO SIGNAL (1kHz/-57.8dBs) TO CN107 AS PER Fig.1
IC201-15 AUDIO
NG
CHECK C2005 (CP1)
OK
IC201-16 AUDIO
NG
CHECK IC201 (CP1)
OK
IC201-8 FM SIGNAL
NG
CHECK IC201 (CP1)
OK
CHECK R1371, R1372

NO PLAY AUDIO


EE-AUDIO
NG
REFER TO "NO EE-AUDIO"
OK
RECORD AUDIO
NG
REFER TO "NO RECORD AUDIO"
OK
PLAY VIDEO
NG
REFER TO "NO PLAY VIDEO "
OK
IC201-1 PLAYBACK FM SIGNAL
NG
CHECK R2021
OK
CHECK IC201

8-5. VIEWFINDER CIRCUIT

NO EVF RASTER


IC971-2
5V
NG
CHECK V/A 5V LINE
OK
T9701-3
4.9V
NG
CHECK VF 5V LINE
OK
IC971-11
1 Vp-p
NG
CHECK VF VIDEO
OK
CN972-4
45 Vp-p
NG
T9701-4
60 Vp-p
IC971-16
2.0 Vp-p
OK
OK
OK
H. DEF
NG
CHECK DY
CHECK L9702
CHECK Q9701 FBT
OK
D9701
CATHODE
11.5 Vp-p
NG
IC971-13
2.5 Vp-p
NG
CHECK IC971
CHECK IC971
OK
OK
CHECK Q9702
CN972-1
1.5Vp-p
NG
CHECK IC971
OK
V. DEF
NG
CHECK DY
OK
HIGH VOLTAGE
※
NG
CHECK T9701
OK
CHECK CRT
BRIGHT ADJ

※ T9701 HV 2.2 kV
G2 300 V
G3 400 V

00 0006
AM550018
Adjustment Manual
0613602 1 Menge: 1

SANYO

SANYO Electric Co., Ltd.
Osaka, Japan

SANYO

FILE No.

SUPPLEMENT OF MECHANISM MANUAL

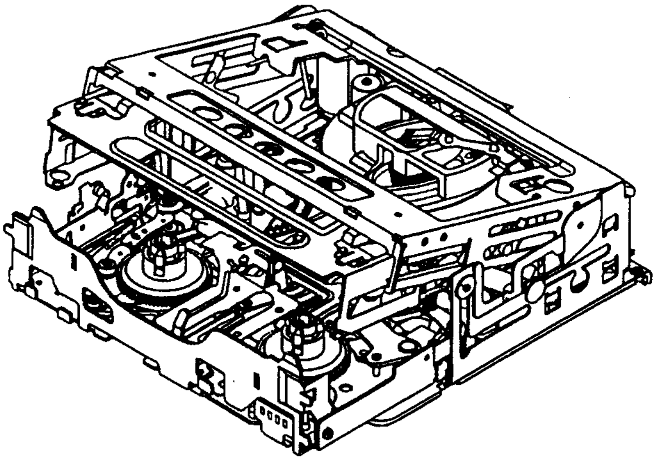
8 mm Camcorder

RS MECHANISM

Revision II

(U. K.)
(EUROPE)
(GENERAL PAL AREA)
(AUSTRALIA)

3957



Notes:

- This manual relates to mechanism. Another one is issued for other circuits.
- Revision II of the RS Mechanism Manual (MS 550018) contains those sections which have changed in line with the design changes which have been made.
- The Operation instructions section has been omitted.
  Please refer to the RS Mechanism Manual (MM550005).
- Page numbers correspond to those in the RS Mechanism Manual (MM550005).
- **The head drum has been changed for the VM-RZ2R and later models. (Those manufactured from April 1994).**

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MECHANISM 4 ··· 5-4

2. PERIODIC CHECK AND SERVICE TOOLS

[1] Periodic Check Items

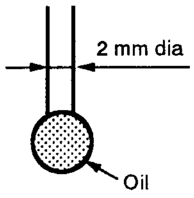
Maintenance and check		**Operating time (Hours)**										**Remarks**
		500	**1,000**	**1,500**	**2,000**	**2,500**	**3,000**	**3,500**	**4,000**	**4,500**	**5,000**	
	Cleaning of Tape running faces	○	○	○	○	○	○	○	○	○	○	Keep oil-free
	Cleaning and degaussing of drum ASSY	○	○	○	○	○	○	○	○	○	○	Keep oil-free
Driving system	Capstan shaft	—	◎	—	◎	—	◎	—	◎	—	◎	Do not allow oil to be in contact with the surfaces of the tape running system.
	Loading motor	—	☆	—	☆	—	☆	—	☆	—	☆	
Performance confirmation	Abnormal sound	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	
	Back tension measurement	—	☆	—	☆	—	☆	—	☆	—	☆	
	Brakings	—	☆	—	☆	—	☆	—	☆	—	☆	
	FWD & RVS	—	☆	—	☆	—	☆	—	☆	—	☆	

○ Cleaning ◎ Lubrication ☆ Confirmation

Note 1: During overhaul, replace parts as required referring to the above table.

Note 2: Oil considerations

- Do not apply oils other than those specified. (Oil with viscosity different from the standard may cause problems.)
  ○ COSMO OIL PASS 150 (Commercially available)
- Use only clean oil for bearings. (Oil containing dust may lead to the worn shaft or frozen shaft.)
- A drop of oil is the amount of oil collecting on a 2 mm dia rod tip as shown in the figure.
- To keep the set at top performance with satisfactory functioning parts including the tape, perform the maintenance and check steps described above periodically. Also, follow the procedure described above after any repair work regardless of operating time.



Note 3: On grease

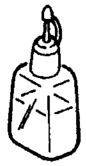
- Use the specified grease.
  Grease : FROIL G-SKY (KANTO KASEI KOGYO Inc.)

[2] Service Tools List

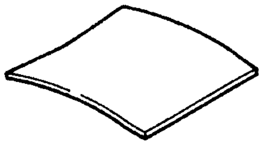
Ref. No.	Name	Part Code	Application,etc.
J-1	Cleaning fluid	Y-2031-001-0	Cleaning tape path system
J-2	Chamois cloth	2-034-697-00	Cleaning tape path system
J-3	Small mirror for adjustment	J-6080-029-A	Tape path adjustment
J-4	Alignment tape NTSC (WR5-1NP) PAL (WR5-1CP)	96-7995-02 96-7995-07	Tape path adjustment
J-5	FWD and RVS winding torque cassette	J-6080-824-A	Reel base torque measurement
J-6	Mode selector	J-6080-825-A	General (part replacement, etc.)
J-7	Mode selector panel		General (part replacement, etc.)
J-8	Loading motor connection harness	VJ8-0134	General (part replacement, etc.)
J-9	Fine-tipped ⊖ screwdriver (dia. 1.2 to 2.3mm)	Commercially available	Adjustment of No.3 and No.6 guides
J-10	Torque screwdriver (outer dia. 2 mm or less)	VJ8-0137	General (part replacement, etc.)
J-11	Box wrench for M1.4 hexagonal nut (Outer dia. of end 6.5 mm or less)	VJ8-0138	Adjustment of No.7 guide
J-12	Circuit board connecting tool	VJ8-0132 or VJ8-0140	Tape path adjustment

Note: WR5-1N can be also used for the J-4 alignment tape (NTSC)
WR5-1C can be also used for the J-4 alignment tape (PAL)
Other instruments required : Oscilloscope

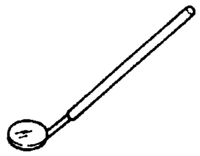
J-1



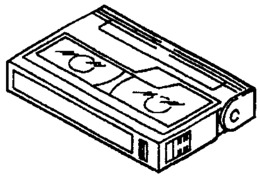
J-2



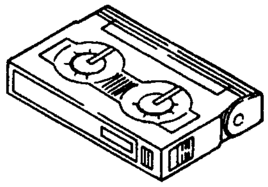
J-3



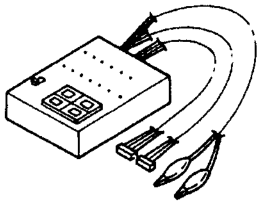
J-4



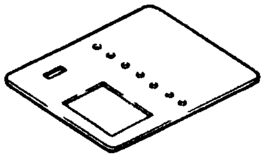
J-5



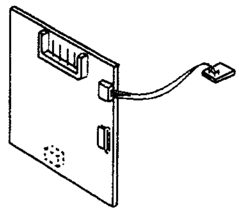
J-6



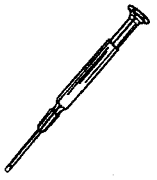
J-7



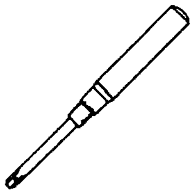
J-8



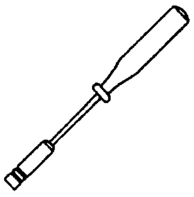
J-9



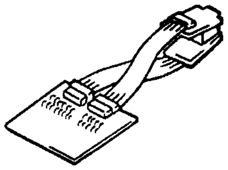
J-10



J-11

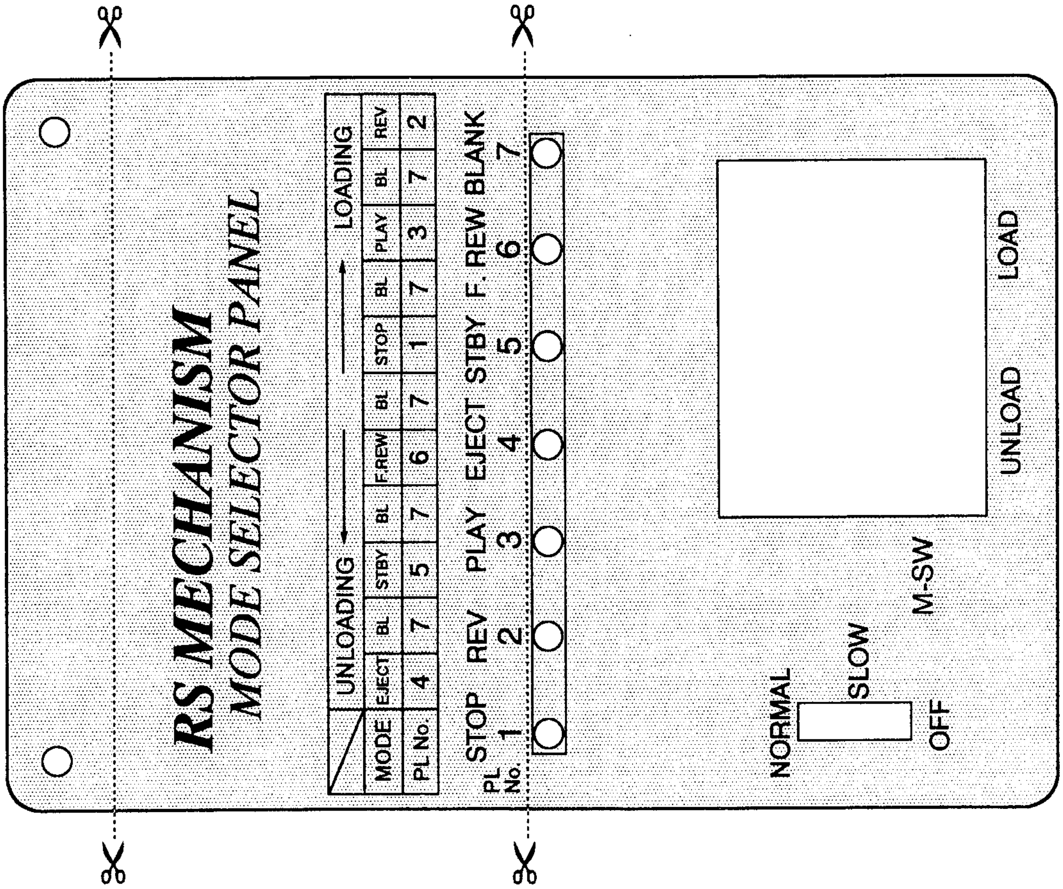


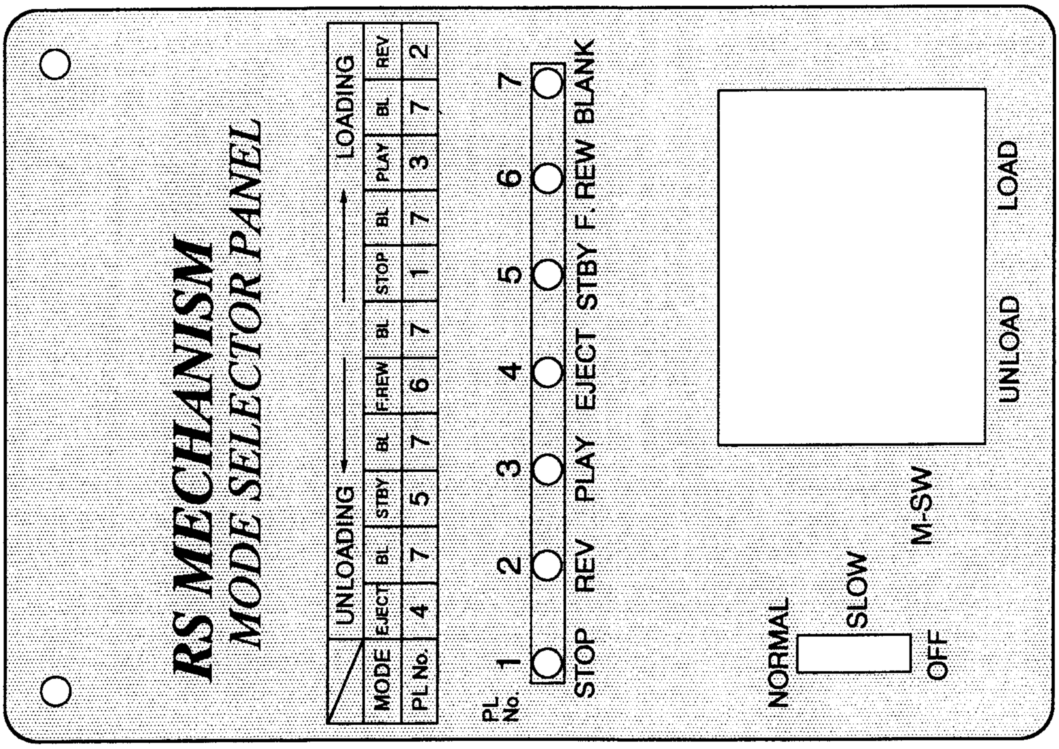
J-12



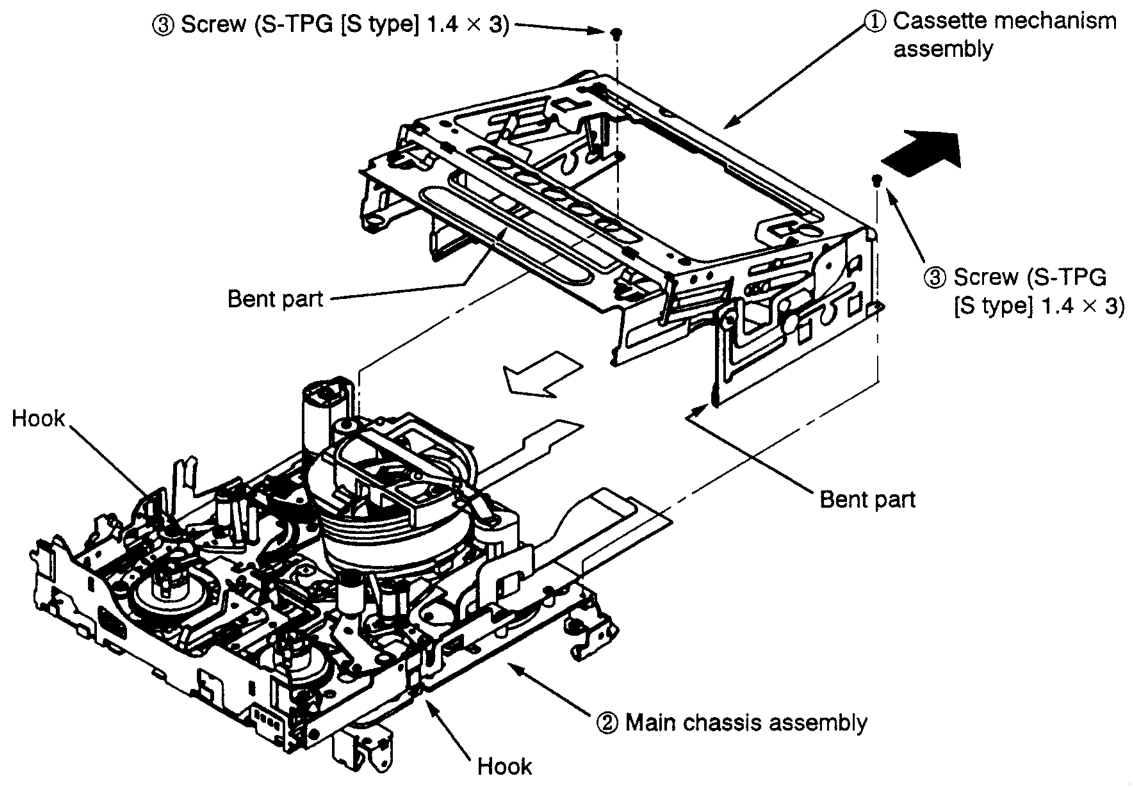
NOTE : Mode Selector Panel

Mode selector adjustments can be done by using the mode selector jig J-6 shown on Page 2-2, just with pasting either one of the following templets, instead of obtaining the orthodox mode selector panel jig J-7 on Page 2-2, which is expensive.


RS MECHANISM
MODE SELECTOR PANEL
UNLOADING
LOADING
MODE
EJECT
BL
STBY
BL
F.REW
BL
STOP
BL
PLAY
BL
REV
PL No.
4
7
5
7
6
7
1
7
3
7
2
PL No.
STOP
1
REV
2
PLAY
3
EJECT
4
STBY
5
F. REW
6
BLANK
7
NORMAL
SLOW
OFF
M-SW
UNLOAD
LOAD


RS MECHANISM
MODE SELECTOR PANEL
UNLOADING
LOADING
MODE
EJECT
BL
STBY
BL
F.REW
BL
STOP
BL
PLAY
BL
REV
PL No.
4
7
5
7
6
7
1
7
3
7
2
PL No.
1
STOP
2
REV
3
PLAY
4
EJECT
5
STBY
6
F. REW
7
BLANK
NORMAL
SLOW
OFF
M-SW
UNLOAD
LOAD

3. REMOVAL AND REINSTALLATION PROCEDURE


③ Screw (S-TPG [S type] 1.4 × 3)
① Cassette mechanism assembly
③ Screw (S-TPG [S type] 1.4 × 3)
Bent part
Hook
Bent part
② Main chassis assembly
Hook

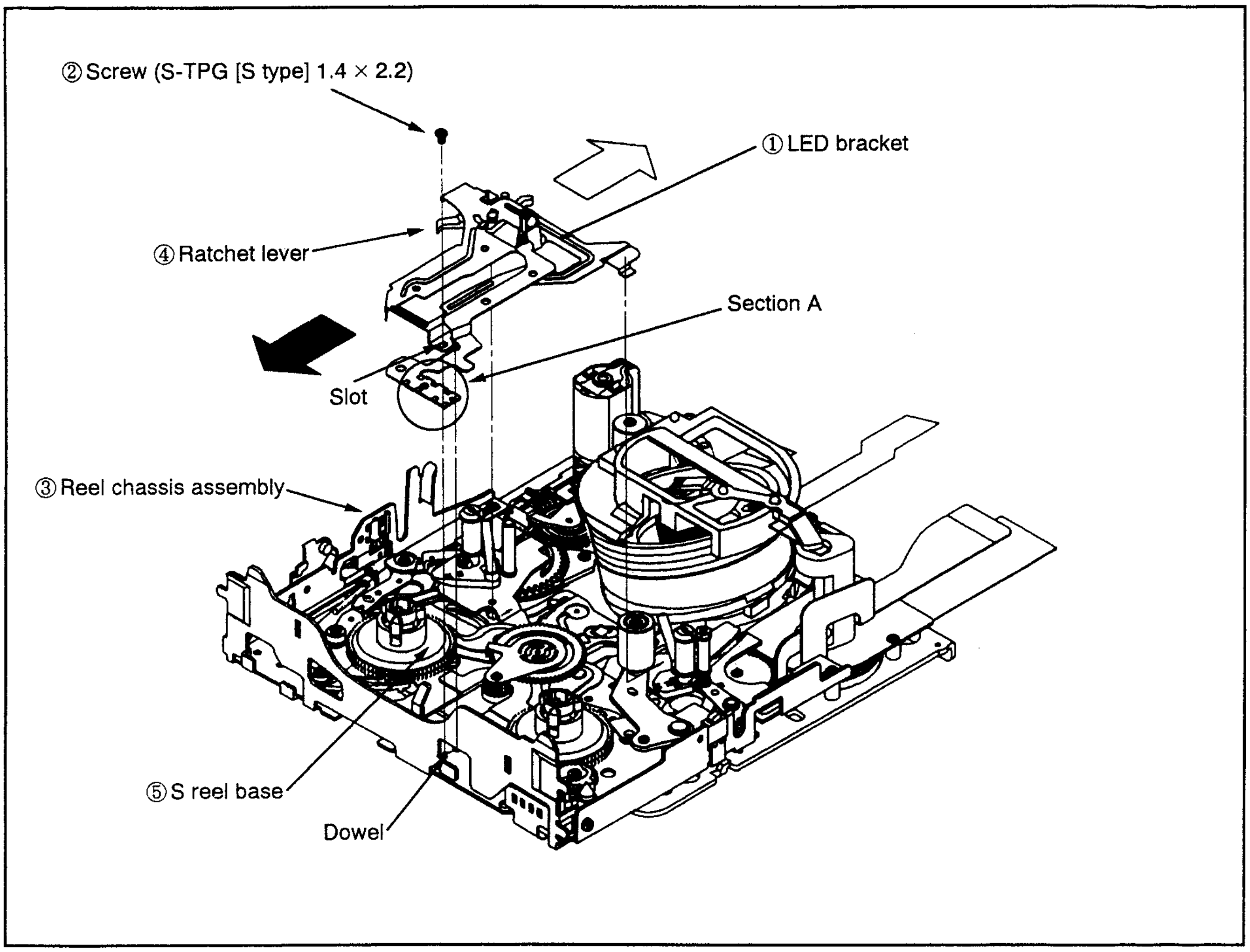
[1] Cassette mechanism

Removal procedure

1. Select the [STAND BY] mode. At this time, the cassette mechanism should be in the UP position.
2. Remove the two screws ③.
3. Slide the cassette mechanism assembly ① to the front (in the direction of the black arrow) to remove it from the main chassis assembly ②.

Reinstallation procedure

1. Select the [STAND BY] mode.
2. Place the cassette mechanism assembly ① by itself in the UP position.
3. Slide the cassette mechanism assembly ① from the front towards you (in the direction of the white arrow) until the bent parts at the left and right of the cassette mechanism assembly ① are in the hooks of the main chassis assembly ②.
4. Replace the two screws ③ with new screws and tighten them. (Tightening torque: 1.0 ± 0.1 kgf•cm)


② Screw (S-TPG [S type] 1.4 × 2.2)
① LED bracket
④ Ratchet lever
Section A
Slot
③ Reel chassis assembly
⑤ S reel base
Dowel

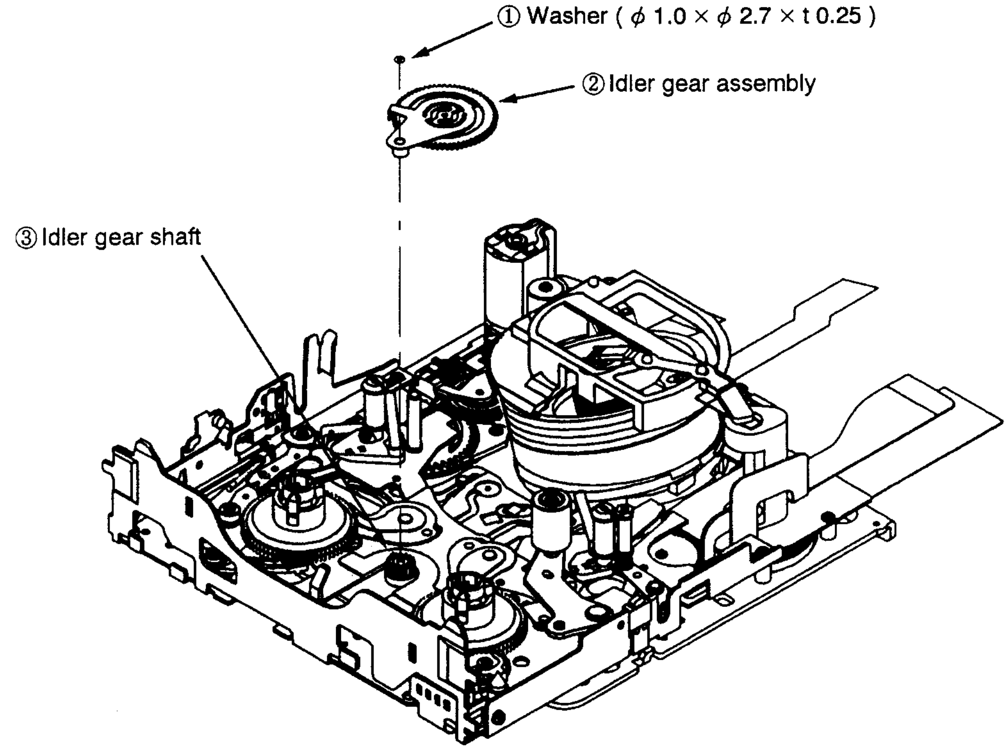
[2] LED Bracket

Removal procedure

1. Select the [STAND BY] mode.
2. Remove the cassette mechanism, referring to [1].
3. Separate the eight soldered points on section A.
4. Remove the screw ②.
5. Slide the LED bracket ① from the front towards you (in the direction of the black arrow) to remove it from the reel chassis assembly ③.

Reinstallation procedure

1. Select the [STAND BY] mode.
2. Align the dowel of the reel chassis assembly ③ with the round hole at the end of the slot on the LED bracket ①, and slide the LED bracket ① towards the front (in the direction of the white arrow). At this time, place the ratchet lever ④ underneath the LED bracket ① so that it does not obstruct the S reel base ⑤.
3. Tighten the screw ②.
   (Tightening torque: 0.7 ± 0.1 kgf•cm)
4. Solder section A in 8 places.
5. Check to be sure that the tab of the ratchet lever ④ is hooked into the lower gear of the S reel base.
6. Install the cassette mechanism, referring to [1].


① Washer (φ 1.0 × φ 2.7 × t 0.25)
② Idler gear assembly
③ Idler gear shaft

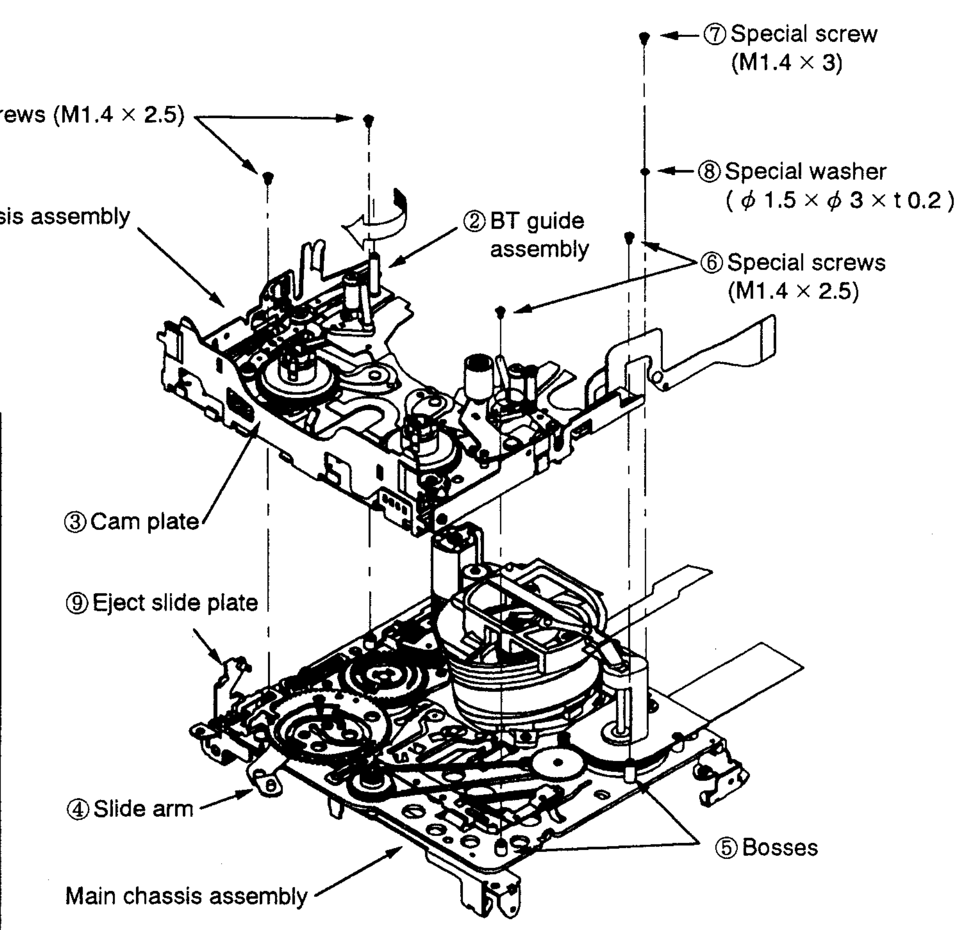
[3] Idler Gear Assembly

Removal procedure

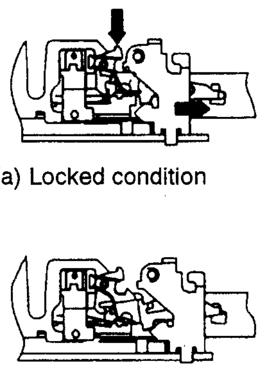
1. Select the [STAND BY] mode.
2. Remove the cassette mechanism, referring to [1].
3. Remove the LED bracket, referring to [2].
4. Remove the washer①.
5. Remove the idler gear assembly ② from the idler gear shaft ③.

Reinstallation procedure

1. Select the [STAND BY] mode.
2. Install the idler gear assembly ② to the idler shaft ③.
3. Secure with the washer①.
4. Install the LED bracket, referring to [2].
5. Install the cassette mechanism, referring to [1].



⑥Special screws (M1.4 × 2.5)
①Reel chassis assembly
⑦Special screw (M1.4 × 3)
⑧Special washer (ϕ 1.5 × ϕ 3 × t 0.2)
②BT guide assembly
⑥Special screws (M1.4 × 2.5)
③Cam plate
⑨Eject slide plate
④Slide arm
Main chassis assembly
⑤Bosses



(a) Locked condition

(b) Unlocked condition

Phase diagram of eject slide plate

[4] Reel Chassis Assembly

Removal procedure

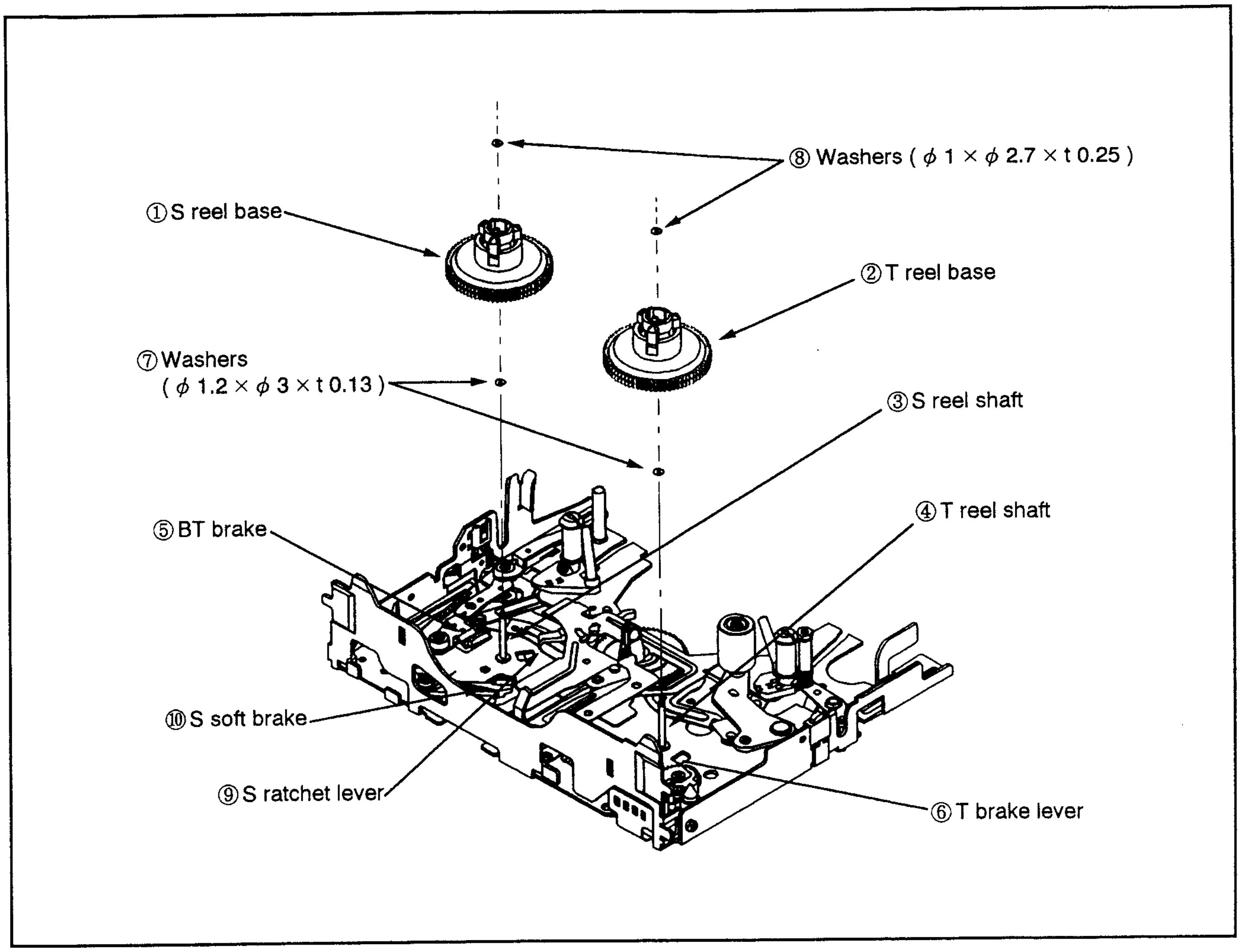
1. Select the [STAND BY] mode.
2. Remove the cassette mechanism, referring to [1].
3. Remove the LED bracket, referring to [2].
4. Remove the idler gear assembly, referring to [3].
5. Remove the screw ⑦ which is securing both the flexible PC board and the capstan motor to the main chassis assembly.
6. Remove the four special screws ⑥ which are securing the reel chassis assembly ① to the main chassis assembly.
7. Lift up the reel chassis assembly ① gently to remove it from the main chassis assembly.

Reinstallation procedure

1. Select the [STAND BY] mode.
2. With the BT guide assembly ② turned fully to the front (in the direction of the arrow), align the four slots of the reel chassis assembly ① with the four bosses ⑤ of the main chassis assembly, and then align the pin of the slide arm ④ with the channel of the cam plate ③.
3. Tighten the four screws ⑥ to secure to the reel chassis. (Tightening torque: 1.0 ± 0.1 kgf•cm)
4. Secure both the flexible PC board and the capstan motor to the main chassis assembly with the screw ⑦. (Tightening torque: 1.0 ± 0.1 kgf•cm)
5. Install the idler gear assembly, referring to [3].
6. Install the LED bracket, referring to [2].
7. Install the cassette mechanism, referring to [1].

Note:

- Specified grease should be applied to the four slots in the reel chassis assembly ①.



[5] S and T reel bases

Removal procedure

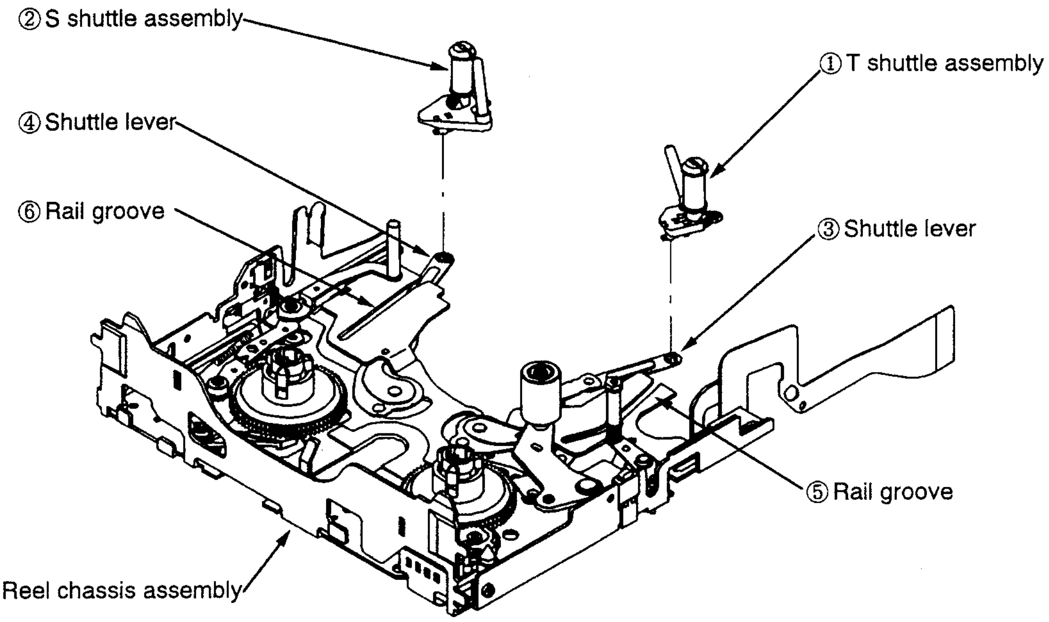
1. Select the [STAND BY] mode.
2. Remove the cassette mechanism, referring to [1].
3. Remove the two washers ⑧.
4. While gently turning the BT brake ⑤ in a clockwise direction, lift up the S reel base ① to remove it from the S reel shaft ③.
5. Lift up the T reel base ② to remove it from the T reel shaft ④.
6. Remove the two washers ⑦.

Reinstallation procedure

1. Select the [STAND BY] mode.
2. Insert the washers ⑦ into the S reel shaft ③ and the T reel shaft ④.
3. After turning both the S ratchet lever ⑨ and the S soft brake ⑩ in a clockwise direction so that they will not be in the way, insert the S reel base ① onto the S reel shaft ③ while making sure that the S reel base ① dose not interfere with the BT brake lever ⑤. After inserting, check to be sure that the S reel base ① is not resting on the S soft brake ⑩ and that the tab of the S ratchet lever ⑨ is hooked into the lower gear of the S reel base ①.
4. After turning the T brake lever ⑥ in a counterclockwise direction so that it will not be in the way, insert the T reel base ② onto the T reel shaft ④. After inserting, turn the T reel base ② gently in a counterclockwise direction and check to be sure that the tab of the T brake lever ⑥ is hooked into the lower gear of the T reel base ②.
5. Secure the S reel base ① and the T reel base ② with the two washers ⑧.
6. Install the cassette mechanism, referring to [1].

Note:

- Before inserting the S reel base ① and the T reel base ②, apply a drop of specified oil to both the S reel shaft ③ and the T reel shaft ④.



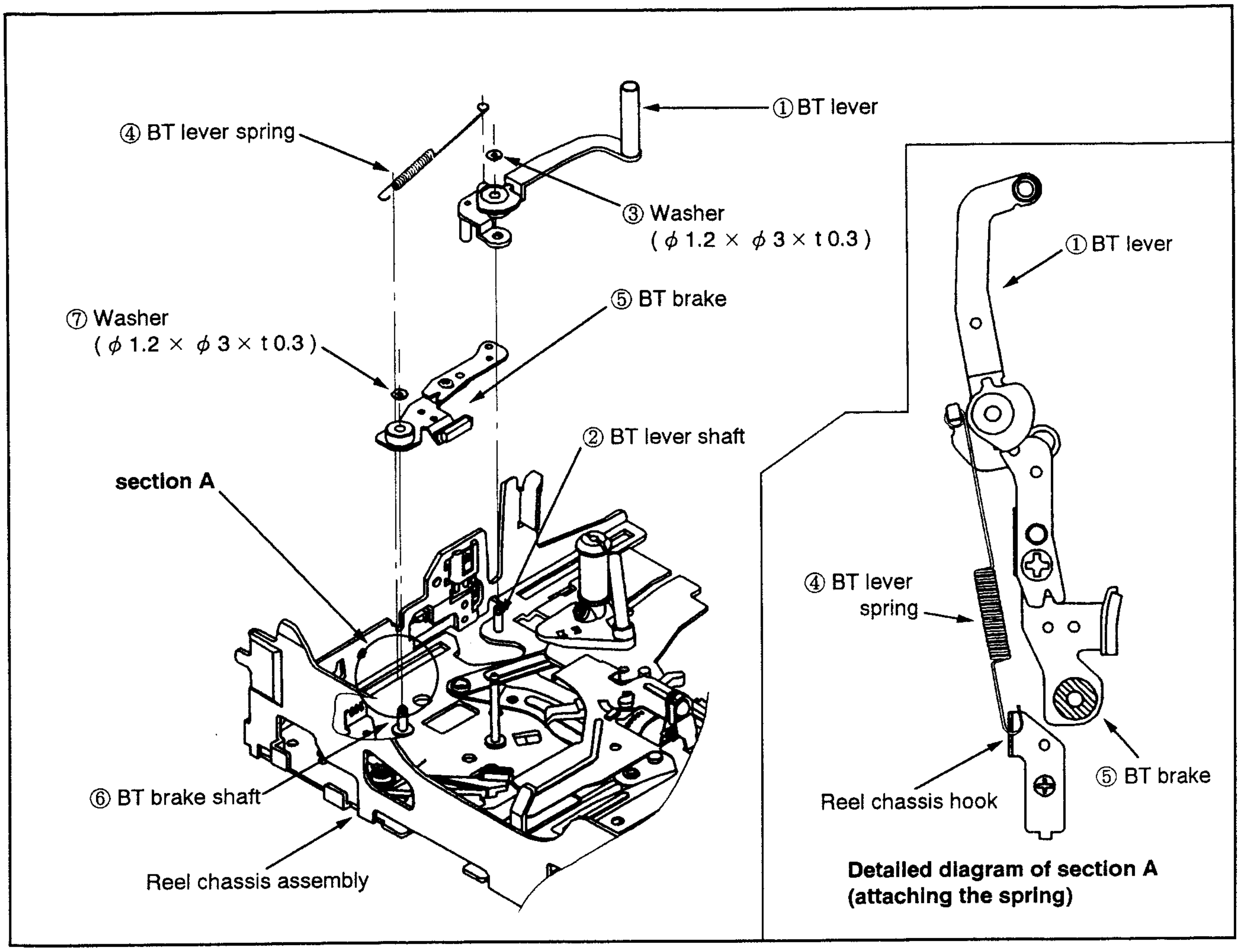
[6] S and T shuttle assemblies

Removal procedure

1. Select the [STAND BY] mode.
2. Remove the cassette mechanism, referring to [1].
3. Remove the LED bracket, referring to [2].
4. Remove the idler gear assembly, referring to [3].
5. Remove the reel chassis assembly, referring to [4].
6. After sliding the S shuttle assembly ② to the front to remove it from the rail groove ⑥ , turn the S shuttle assembly ② to remove the locking hook from the hook hole of the shuttle lever ④.
7. After sliding the T shuttle assembly ① to the front to remove it from the rail groove ⑤ , turn the T shuttle assembly ① to remove the locking hook from the hook hole of the shuttle lever ③.

Reinstallation procedure

1. After inserting the locking hook of the S shuttle assembly ② into the hook hole of the shuttle lever ④ and turning the S shuttle assembly ②, slide the S shuttle assembly ② towards you along the rail groove ⑥ as far as it will go.
2. After inserting the locking hook of the T shuttle assembly ① into the hook hole of the shuttle lever ③ and turning the T shuttle assembly ①, slide the T shuttle assembly ① towards you along the rail groove ⑤ as far as it will go.
3. Select the [STAND BY] mode.
4. Install the reel chassis assembly, referring to [4].
5. Install the idler gear assembly, referring to [3].
6. Install the LED bracket, referring to [2].
7. Install the cassette mechanism, referring to [1].


④ BT lever spring
① BT lever
③ Washer
(ϕ 1.2 × ϕ 3 × t 0.3)
⑦ Washer
(ϕ 1.2 × ϕ 3 × t 0.3)
⑤ BT brake
② BT lever shaft
section A
⑥ BT brake shaft
Reel chassis assembly
① BT lever
④ BT lever spring
Reel chassis hook
⑤ BT brake

Detailed diagram of section A (attaching the spring)

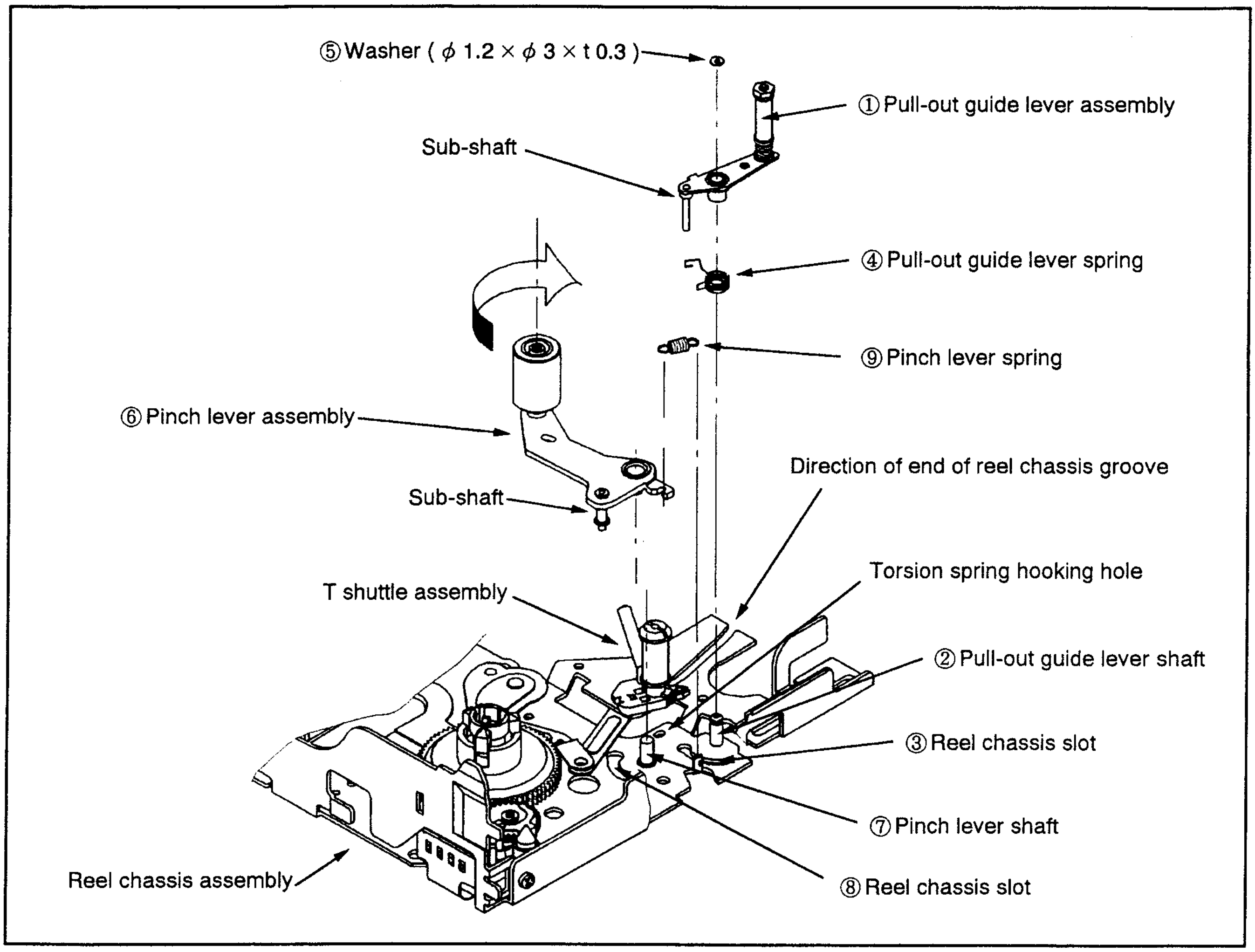
[7] BT lever and BT brake

Removal procedure

1. Select the [STAND BY] mode.
2. Remove the cassette mechanism, referring to [1].
3. Remove the S reel base, referring to [5].
4. Remove the washer ⑦.
5. Lift up the BT brake ⑤ to remove it from the BT brake shaft ⑥.
6. Remove the BT lever spring ④.
7. Remove the washer ③.
8. Lift up the BT lever ① to remove it from the BT lever shaft ②.

Reinstallation procedure

1. Select the [STAND BY] mode.
2. Insert the BT lever ① onto the BT lever shaft ②.
3. Secure with the washer ③.
4. Attach the longer arm of the BT lever spring ④ to the BT lever ①, and attach the shorter arm to the spring attachment hook on section A of the reel chassis assembly.
5. Insert the BT brake ⑤ onto the BT brake shaft ⑥.
6. Secure with the washer ⑦.
7. Install the S reel base, referring to [5].
8. Install the cassette mechanism, referring to [1].


⑤Washer (ϕ 1.2 × ϕ 3 × t 0.3)
①Pull-out guide lever assembly
Sub-shaft
④Pull-out guide lever spring
⑨Pinch lever spring
⑥Pinch lever assembly
Direction of end of reel chassis groove
Sub-shaft
Torsion spring hooking hole
T shuttle assembly
②Pull-out guide lever shaft
③Reel chassis slot
⑦Pinch lever shaft
Reel chassis assembly
⑧Reel chassis slot

[8] Pull-out guide lever assembly and pinch lever assembly

Pull-out guide lever assembly removal procedure

1. Select the [STAND BY] mode.
2. Remove the cassette mechanism, referring to [1].
3. Remove the washer ⑤.
4. While lifting the pull-out guide lever assembly ① slightly, remove the pull-out guide lever spring ④ which is hooked onto the spring slot of the reel chassis assembly.
5. Remove the pull-out guide lever assembly ① and the pull-out guide lever spring ④ from the pull-out guide lever shaft ②.

Pinch lever assembly removal procedure

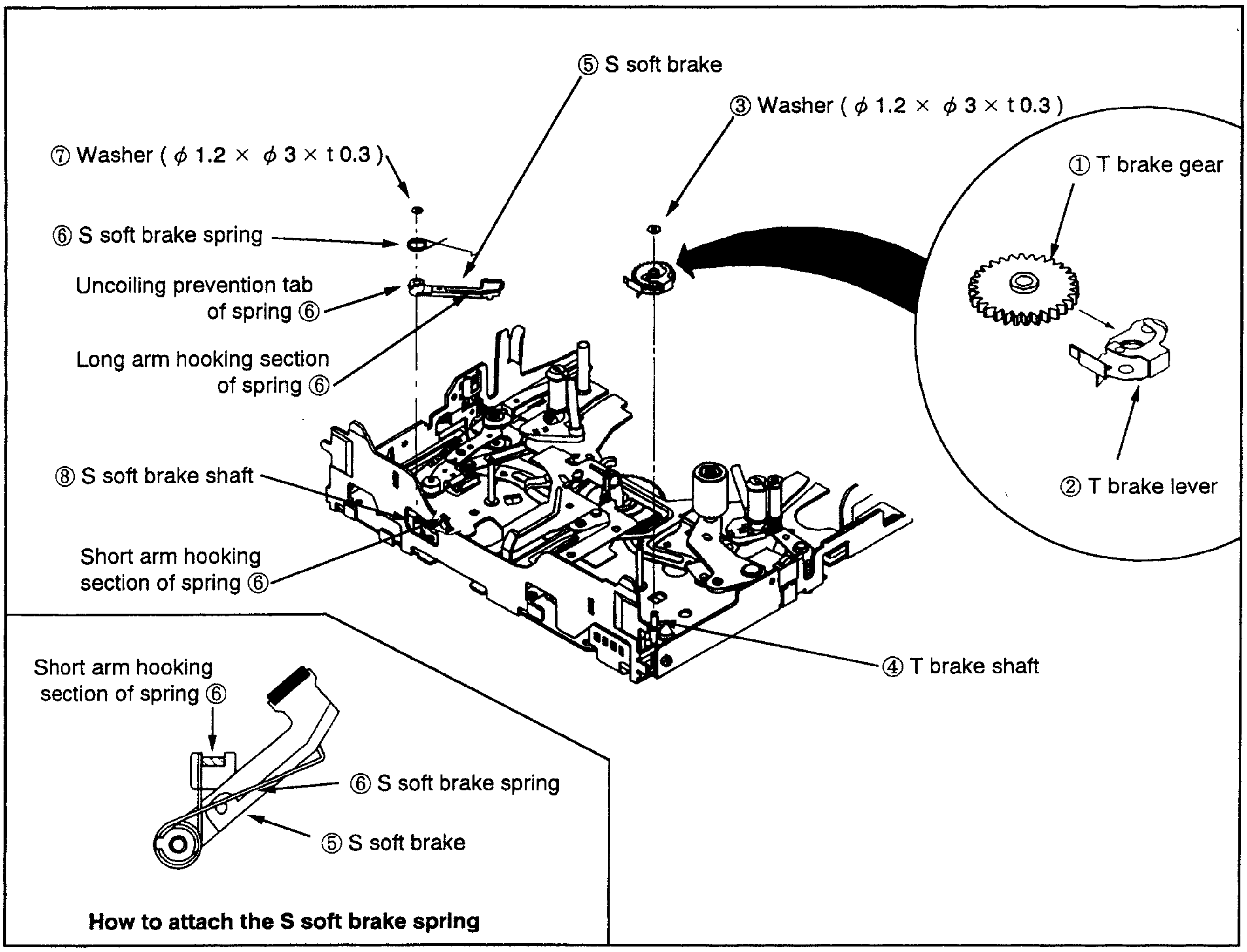
1. Select the [STAND BY] mode.
2. Remove the cassette mechanism, referring to [1].
3. Remove the LED bracket, referring to [2].
4. Remove the idler gear assembly, referring to [3].
5. Remove the reel chassis assembly, referring to [4].
6. Remove the pinch lever spring ⑨.
7. With the T shuttle assembly slid to the front (in the direction of the end of the reel chassis groove) and the eject lever assembly ① turned in a clockwise direction, turn the pinch lever assembly ⑥ fully in a clockwise direction (in the direction of the arrow) and then lift it up to remove it from the pinch lever shaft ⑦.

Pull-out guide lever reinstallation procedure

1. Select the [STAND BY] mode.
2. While attaching the shorter arm of the pull-out guide lever spring ④ to the pull-out guide lever assembly ①, and the longer arm to the spring attachment slot in the reel chassis assembly, insert the pull-out guide lever assembly ① and the pull-out guide lever spring ④ onto the pull-out guide lever shaft ②.
3. Secure with the washer ⑤.
4. Install the cassette mechanism, referring to [1].

Pinch lever reinstallation procedure

1. With the T shuttle assembly slid to the front (in the direction of the end of the reel chassis groove) and the pull-out guide lever assembly ① turned in a clockwise direction, inset the pinch lever assembly ⑥ so that the sub-shaft for rotating the pinch lever assembly is aligned with the end of the round section of the slot in the reel chassis ⑧.
2. Hook on the pinch lever spring ⑨.
3. Slide the T shuttle assembly fully towards the front.
4. Select the [STAND BY] mode.
5. Install the reel chassis assembly, referring to [4].
6. Install the idler gear assembly, referring to [3].
7. Install the LED bracket, referring to [2].
8. Install the cassette mechanism, referring to [1].


⑤ S soft brake
③ Washer (ϕ 1.2 × ϕ 3 × t 0.3)
⑦ Washer (ϕ 1.2 × ϕ 3 × t 0.3)
① T brake gear
⑥ S soft brake spring
Uncoiling prevention tab of spring ⑥
Long arm hooking section of spring ⑥
② T brake lever
⑧ S soft brake shaft
Short arm hooking section of spring ⑥
④ T brake shaft
Short arm hooking section of spring ⑥
⑥ S soft brake spring
⑤ S soft brake

How to attach the S soft brake spring

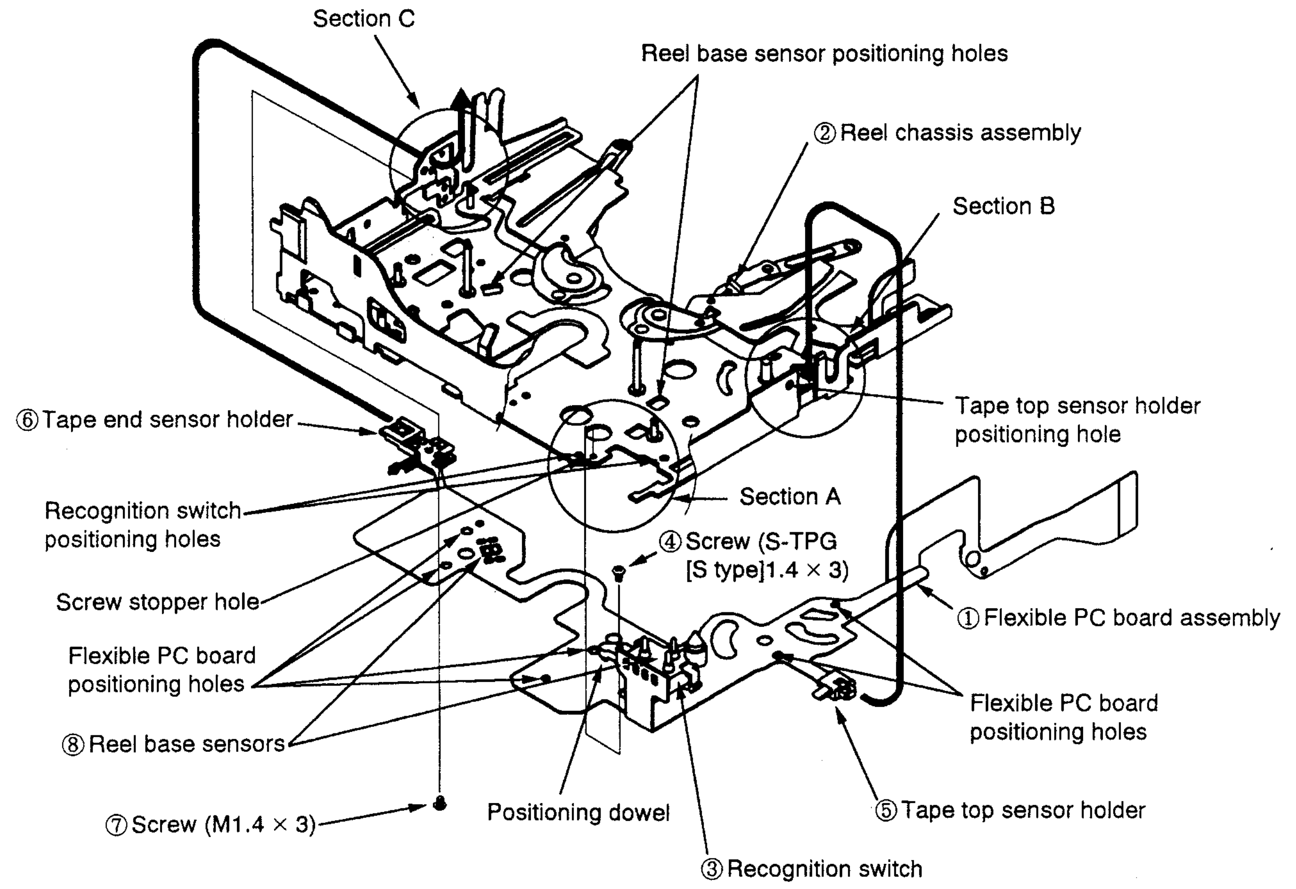
[9] T brake and S soft brake

Removal procedure

1. Select the [STAND BY] mode.
2. Remove the cassette mechanism, referring to [1].
3. Remove the S reel base and T reel base, referring to [5].
4. Remove the washer ③.
5. Lift up the T brake gear ① and T brake lever ② to remove them from the T brake shaft ④.
6. Slide the T brake gear ① sideways to remove it from the T brake lever ②.
7. Remove the washer ⑦.
8. Remove the S soft brake spring ⑥.
9. Lift up the S soft brake ⑤ to remove it from the S soft brake shaft ⑧.

Reinstallation procedure

1. Select the [STAND BY] mode.
2. Slide the T brake gear ① from the side to insert it into the T brake lever ②.
3. Insert the T brake gear ① and T brake lever ② onto the T brake shaft ④.
4. Secure with the washer ③.
5. Insert the S soft brake ⑤ onto the S soft brake shaft ⑧.
6. Attach the S soft brake spring ⑥.
7. Secure with the washer ⑦.
8. Install the S reel base and T reel base, referring to [5].
9. Install the cassette mechanism, referring to [1].


Section C
Reel base sensor positioning holes
② Reel chassis assembly
Section B
⑥ Tape end sensor holder
Tape top sensor holder positioning hole
Section A
Recognition switch positioning holes
④ Screw (S-TPG [S type]1.4 × 3)
Screw stopper hole
① Flexible PC board assembly
Flexible PC board positioning holes
Flexible PC board positioning holes
⑧ Reel base sensors
⑦ Screw (M1.4 × 3)
Positioning dowel
⑤ Tape top sensor holder
③ Recognition switch

[10] Flexible PC board assembly

Removal procedure

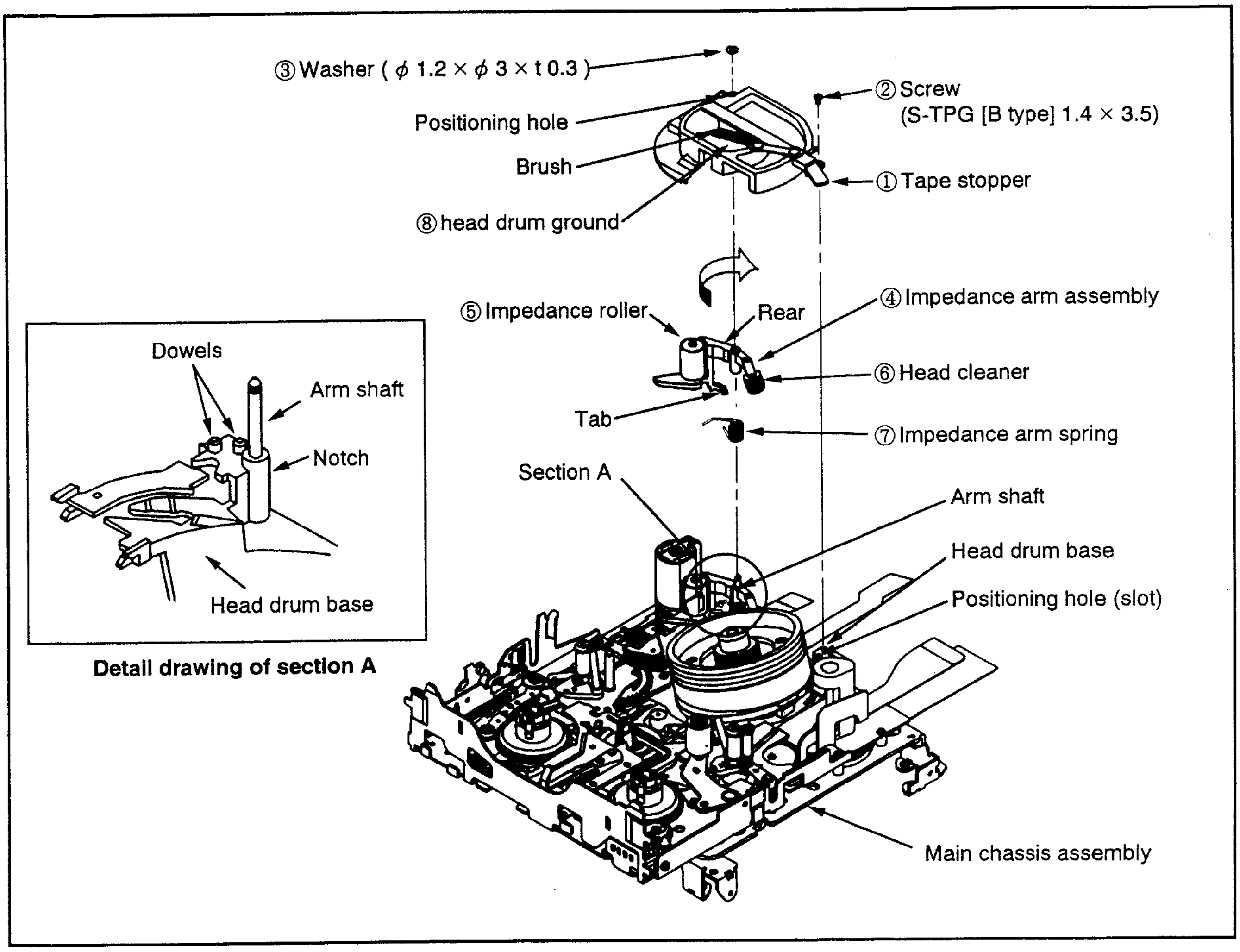
1. Select the [STAND BY] mode.
2. Remove the cassette mechanism, referring to [1].
3. Remove as far as the reel chassis assembly, referring to [2] – [4].
4. Remove the S and T reel bases, referring to [5].
5. Remove the screw ⑦ and slide the tape end sensor holder ⑥ slightly below section C of the reel chassis assembly ② to remove it.
6. Remove the screw ④, and then remove the recognition switch ③ from section A of the reel chassis assembly ②.
7. Remove the flexible PC board assembly ① from the reel chassis assembly ②, while exercising sufficient care so that it doesn't break.
8. After the glued section has all been removed, lastly remove the tape top sensor holder ⑤ by sliding it from section B of the reel chassis assembly ② to the top of section B.

Reinstallation procedure

1. Align the positioning dowel of the recognition switch ③ with the positioning hole in section A of the reel chassis assembly ②, and then secure with the screw ④.
   (Tightening torque: 0.7 ± 0.07 kgf•cm)
2. Insert the tape top sensor holder ⑤ by sliding it from the top of section B of the reel chassis assembly ② to the bottom, and secure it so that the dowel is aligned with the positioning hole.
3. Peel off the backing paper from the flexible PC board assembly ①, and stick the flexible PC board assembly ① to the reverse surface of the reel chassis assembly ②.
   At this time, make sure that the five positioning holes in the flexible PC board are aligned with the dowels on the reel chassis. Also, check to be sure that the two reel base sensors ⑧ are aligned with the positioning holes in the reel chassis.
4. Hook the top of the tape end sensor holder ⑥ onto section C of the reel chassis assembly ②. After making sure it is positioned correctly, secure with the screw ⑦ after applying sealant to the screw thread.
   (Tightening torque: 0.5 ± 0.05 kgf•cm)
5. Install the S and T reel bases, referring to [5].
6. Select the [STAND BY] mode.
7. Install as far as the LED bracket, referring to [2] – [4].
8. Install the cassette mechanism, referring to [1].

Notes:

- Be careful to install properly so that the flexible PC board and the reel chassis do not separate.
- If there is some grease adhering to the reel chassis-side installation surface of the flexible PC board, clean it off with alcohol.


③ Washer (ϕ 1.2 × ϕ 3 × t 0.3)
Positioning hole
Brush
⑧ head drum ground
② Screw
(S-TPG [B type] 1.4 × 3.5)
① Tape stopper
⑤ Impedance roller
Rear
④ Impedance arm assembly
⑥ Head cleaner
Tab
⑦ Impedance arm spring
Section A
Arm shaft
Head drum base
Positioning hole (slot)
Main chassis assembly
Dowels
Arm shaft
Notch
Head drum base

Detail drawing of section A

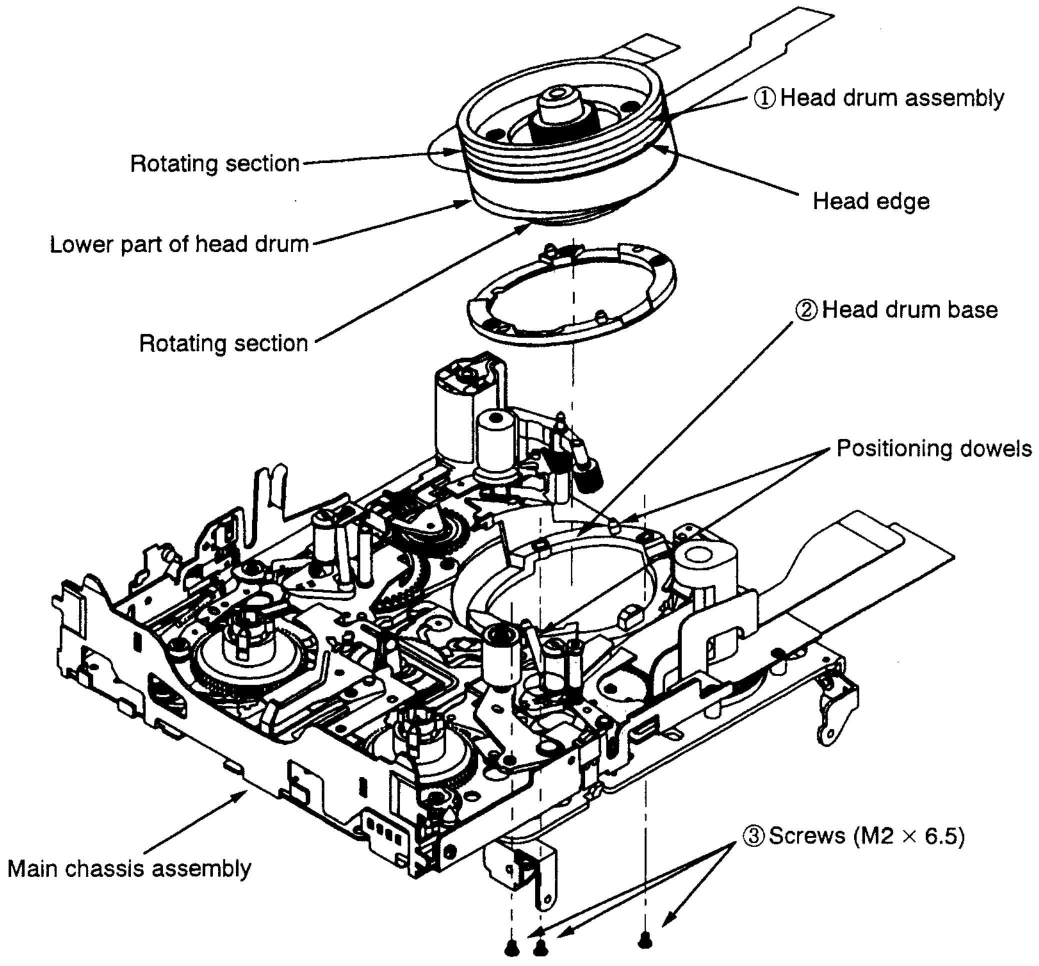
[11] Tape stopper and impedance arm assembly

Removal procedure

1. Select the [STAND BY] mode.
2. Remove the cassette mechanism, referring to [1].
3. Remove the washer ③.
4. Remove the screw ②.
5. Lift up the tape stopper ① to remove it.
6. After turning the impedance arm assembly ④ in a clockwise direction (in the direction of the arrow) until the tab is disengaged from the notch of the head drum base, lift up the impedance arm assembly ④ and the impedance arm spring ⑦ to remove them.

Reinstallation procedure

1. Select the [STAND BY] mode.
2. After passing the shorter arm of the impedance arm spring ⑦ between the two dowels of the head drum base, and hooking the longer arm to the rear of the impedance arm assembly ④, push it downwards while gently turning it in a clockwise direction (in the direction of the arrow) to insert the impedance arm assembly ④ and the impedance arm spring ⑦ onto the arm shaft.
3. After inserting, check to be sure that the tab of the impedance arm assembly ④ is engaged in the notch of the head drum base.
4. Place the positioning hole of the tape stopper ① over the arm shaft, and then secure it to the head drum base with the screw ②.
   (Tightening torque: 0.5 ± 0.05 kgf•cm)
5. Secure with the washer ③.
6. After installing the tape stopper①, check that the brush of the head drum ground⑧ is touching the head drum shaft.
7. Install the cassette mechanism, referring to [1].



① Head drum assembly
Rotating section
Head edge
Lower part of head drum
② Head drum base
Rotating section
Positioning dowels
③ Screws (M2 × 6.5)
Main chassis assembly

[12] Head drum assembly

Removal procedure

1. Select the [STAND BY] mode.
2. Remove the cassette mechanism, referring to [1].
3. Remove the tape stopper, referring to [11].
4. Remove the three screws ③.
5. Lift up the head drum assembly ① gently to remove it from the head drum base ②, while being careful not to touch any surrounding parts.

Note:

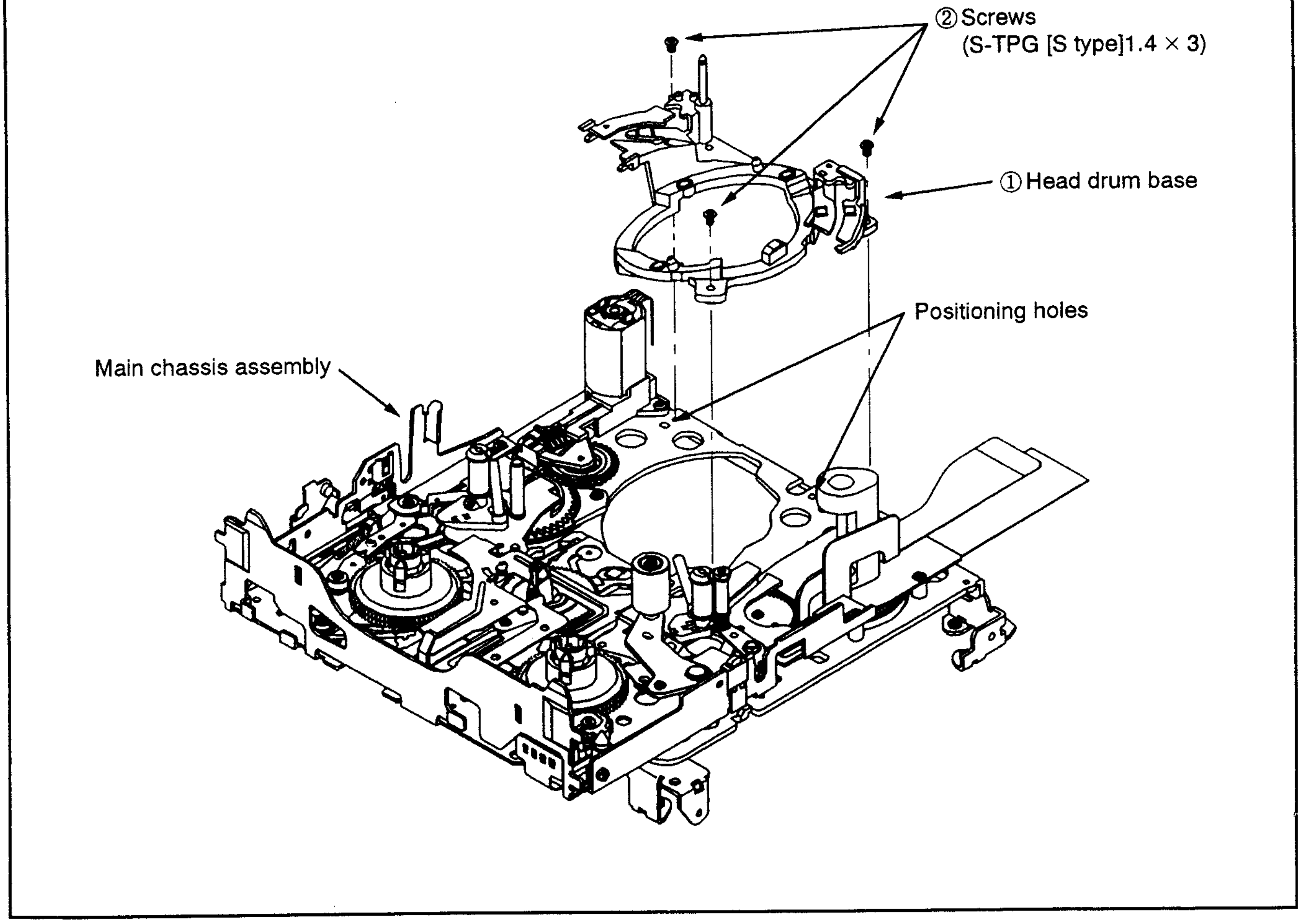
- When removing the head drum assembly, always be sure to wear gloves so that your hand does not directly touch the assembly. In particular, make absolutely sure that no contamination gets onto the section where the tape runs (on the surface of the head drum assembly). Do not place anything on the edges of the heads, as the edges can easily become chipped.

Reinstallation procedure

1. Select the [STAND BY] mode.
2. Place the head drum assembly ① so that its positioning holes are aligned with the two positioning dowels of the head drum base ②. At this time, be careful not to touch any surrounding parts.
3. Secure by tightening the three screws ③ to uniform tightness.
   (Tightening torque: 0.8 ± 0.1 kgf•cm)
4. Install the tape stopper, referring to [11].
5. Install the cassette mechanism, referring to [1].

Note:

- When reinstalling the head drum assembly, always be sure to wear gloves so that your hand does not directly touch the assembly. In particular, make absolutely sure that no contamination gets onto the section where the tape runs (on the surface of the head drum assembly). Do not place anything on the edges of the heads, as the edges can easily become chipped.



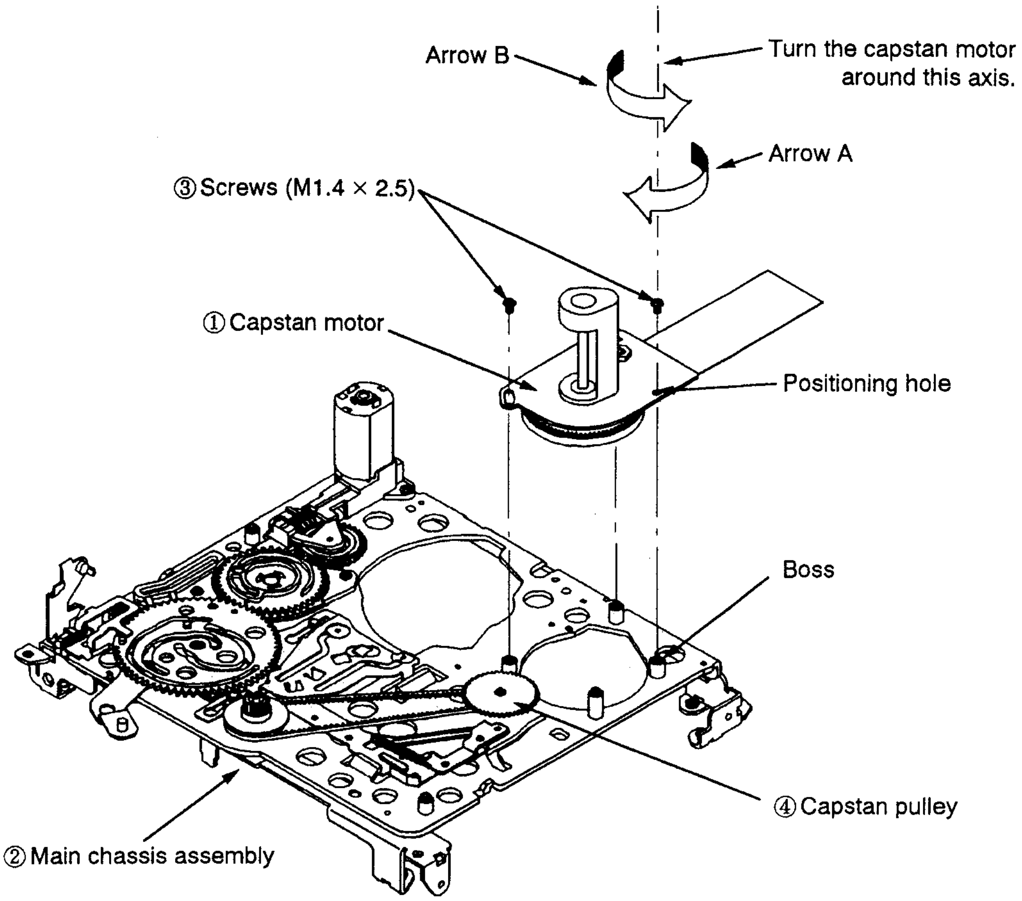
[13] Head drum base

Removal procedure

1. Select the [STAND BY] mode.
2. Remove the cassette mechanism, referring to [1].
3. Remove the tape stopper and impedance arm assembly, referring to [11].
4. Remove the head drum assembly, referring to [12].
5. Remove the three screws ②.
6. Lift up the head drum base ① to remove it from the main chassis assembly.

Reinstallation procedure

1. Select the [STAND BY] mode.
2. Place the head drum base ① so that its positioning dowels are aligned with the two positioning holes of the main chassis assembly.
3. Secure by tightening the three screws ② to uniform tightness.
   (Tightening torque: 1.0 ± 0.1 kgf•cm)
4. Install the head drum assembly, referring to [12].
5. Install the tape stopper and impedance arm assembly, referring to [10].
6. Install the cassette mechanism, referring to [1].


Arrow B
Turn the capstan motor around this axis.
Arrow A
③Screws (M1.4 × 2.5)
①Capstan motor
Positioning hole
Boss
④Capstan pulley
②Main chassis assembly

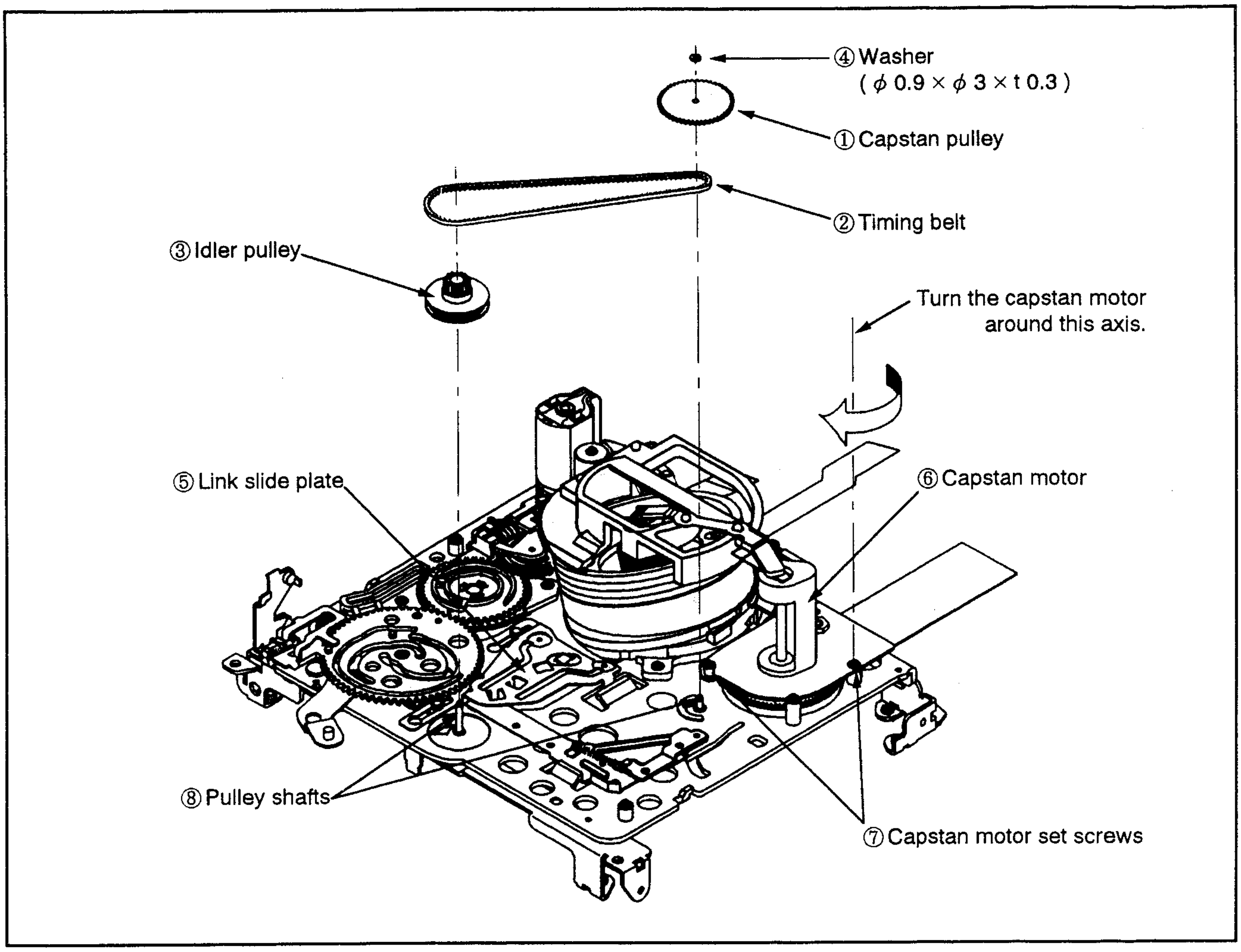
[14] Capstan motor

Removal procedure

1. Select the [STAND BY] mode.
2. Remove the cassette mechanism, referring to [1].
3. Remove as far as the reel chassis assembly, referring to [2] – [4].
4. Remove as far as the head drum base, referring to [11] – [13].
5. Remove the two screws ③.
6. After turning the capstan motor ① in a clockwise direction (in the direction of arrow A) with the positioning hole as the axis of rotation, lift up the capstan motor ① to remove it from the main chassis assembly ②.

Reinstallation procedure

1. After placing the capstan motor ① onto the main chassis assembly ② so that the positioning hole is aligned with the boss, turn the capstan motor ① fully in a counterclockwise direction (in the direction of arrow B) with the positioning hole as the axis of rotation.
2. Secure by tightening the two screws ③ to uniform tightness. (Tightening torque: 0.8 ± 0.1 kgf•cm)
3. Check to be sure that the gear of the capstan motor ① and the gear of the capstan pulley ④ are meshed.
4. Select the [STAND BY] mode.
5. Install as far as the tape stopper, referring to [11] – [13].
6. Install as far as the LED bracket, referring to [2] – [4].
7. Install the cassette mechanism, referring to [1].


④ Washer
(ϕ 0.9 × ϕ 3 × t 0.3)
① Capstan pulley
② Timing belt
③ Idler pulley
Turn the capstan motor around this axis.
⑤ Link slide plate
⑥ Capstan motor
⑧ Pulley shafts
⑦ Capstan motor set screws

[15] Timing belt and pulley

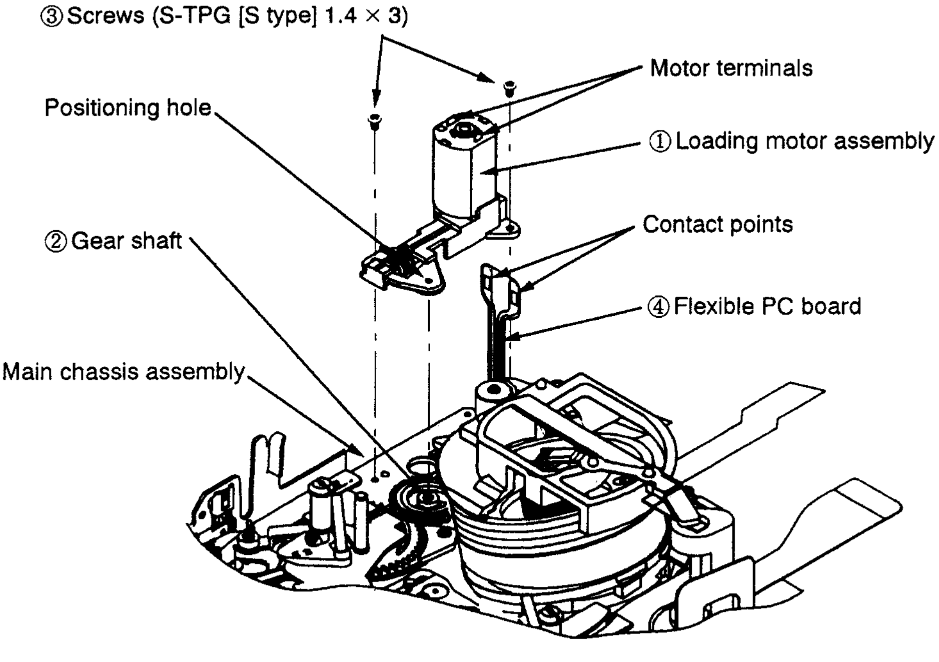
Removal procedure

1. Remove the cassette mechanism, referring to [1].
2. Remove as far as the reel chassis assembly, referring to [2] – [4].
3. Use the mode selector to move the unit slightly in the loading direction from [STAND BY] mode, and stop it at the point where the link slide plate ⑤ is no longer on the timing belt ②.
4. Loosen the two set screws ⑦ of the capstan motor, turn the capstan motor ⑥ in a clockwise direction (in the direction of the arrow) so that the positioning hole comes to the center and the capstan motor ⑥ is no longer on the capstan pulley ①.
5. Remove the washer ④.
6. Remove the capstan pulley ①, timing belt ② and idler pulley ③ from the main chassis assembly in that order.

Reinstallation procedure

1. Use the mode selector to move the unit slightly in the loading direction from [STAND BY] mode.
2. Loosen the two set screws ⑦ of the capstan motor, and turn the capstan motor fully in a clockwise direction (in the direction of the arrow) so that the positioning hole comes to the center.
3. Install the capstan pulley ①, timing belt ② and idler pulley ③ to the main chassis assembly in that order.
4. Secure the capstan pulley ① with the washer ④.
5. Place the positioning hole of the capstan motor ⑥ in the center and turn the capstan motor ⑥ fully in a counter-clockwise direction.
6. Secure by tightening the two set screws ⑦ of the capstan motor to uniform tightness.
   (Tightening torque: 1.0 ± 0.1 kgf•cm)
7. Check to be sure that the gears of the capstan motor ⑥, capstan pulley ①, timing belt ② and idler pulley ③ are all meshed.
8. Select the [STAND BY] mode.
9. Install as far as the LED bracket, referring to [2] – [4].
10. Install the cassette mechanism, referring to [1].

Note: Before installing the capstan pulley ① and the idler pulley ③, apply a drop of specified oil to the two pulley shafts ⑧.


③Screws (S-TPG [S type] 1.4 × 3)
Motor terminals
Positioning hole
①Loading motor assembly
Contact points
②Gear shaft
④Flexible PC board
Main chassis assembly

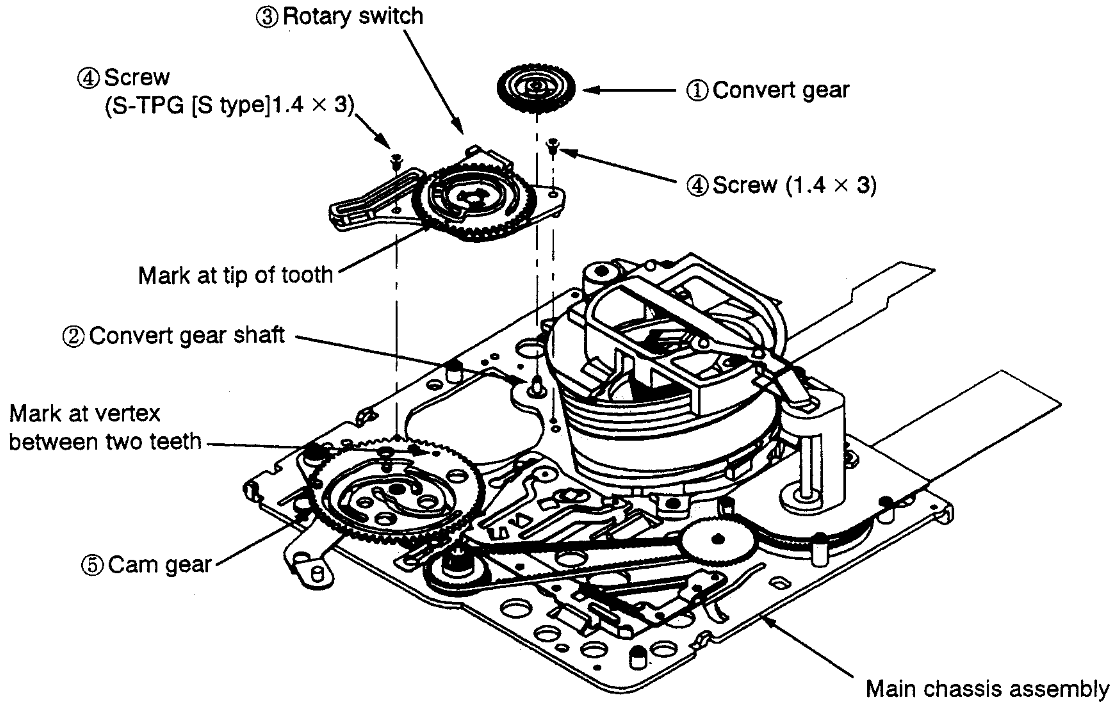
[16] Loading motor assembly

Removal procedure

1. Select the [STAND BY] mode.
2. Remove the cassette mechanism, referring to [1].
3. Remove the flexible PC board ④ which is soldered to the terminals of the loading motor assembly ①.
4. Remove the two screws ③.
5. Lift up the loading motor assembly ① to remove it from the main chassis assembly.

Reinstallation procedure

1. Select the [STAND BY] mode.
2. While aligning the positioning hole of the loading motor assembly ① with the gear shaft ②, place the loading motor assembly ① onto the main chassis assembly.
3. Secure by tightening the two screws ③ to uniform tightness.
   (Tightening torque: 1.0 ± 0.1 kgf•cm)
4. Align the contact points of the flexible PC board ④ with the motor terminals, and solder in two places.
5. Install the cassette mechanism, referring to [1].


③ Rotary switch
④ Screw
(S-TPG [S type]1.4 × 3)
① Convert gear
④ Screw (1.4 × 3)
Mark at tip of tooth
② Convert gear shaft
Mark at vertex
between two teeth
⑤ Cam gear
Main chassis assembly

[17] Convert gear and rotary switch

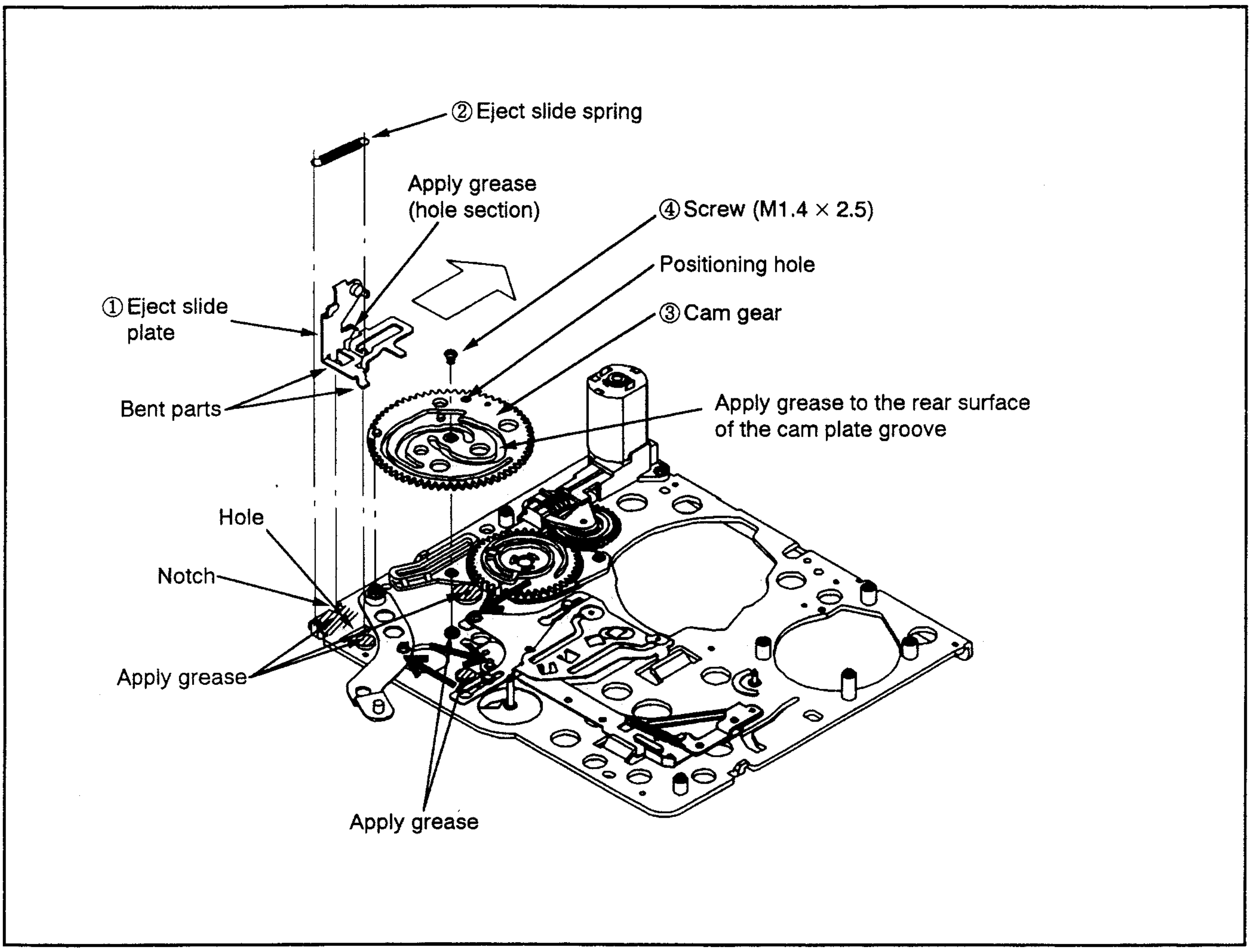
Removal procedure

1. Select the [STAND BY] mode.
2. Remove the cassette mechanism, referring to [1].
3. Remove as far as the reel chassis assembly, referring to [2] – [4].
4. Remove the loading motor assembly, referring to [16].
5. Lift up the convert gear ① to remove it from the convert gear shaft ②.
6. Remove the two screws ④.
7. Remove the rotary switch ③ from the main chassis assembly.

Reinstallation procedure

1. Install the rotary switch ③ to the main chassis assembly so that the mark at the tip of the tooth of the rotary switch ③ is aligned with the mark at the vertex between two teeth of the cam gear ⑤.
2. Tighten the two screws ④.
   (Tightening torque: 1.0 ± 0.1 kgf•cm)
3. Insert the convert gear ① onto the convert gear shaft ②.
4. Install the loading motor assembly, referring to [16].
5. Check to be sure the unit is in [STAND BY] mode using the mode selector.
6. Install as far as the LED bracket, referring to [2] – [4].
7. Install the cassette mechanism, referring to [1].

Note: For details on phase matching, refer to section [20].


② Eject slide spring
Apply grease (hole section)
④ Screw (M1.4 × 2.5)
Positioning hole
③ Cam gear
① Eject slide plate
Bent parts
Apply grease to the rear surface of the cam plate groove
Hole
Notch
Apply grease
Apply grease

[18] Eject slide and cam gear

Removal procedure

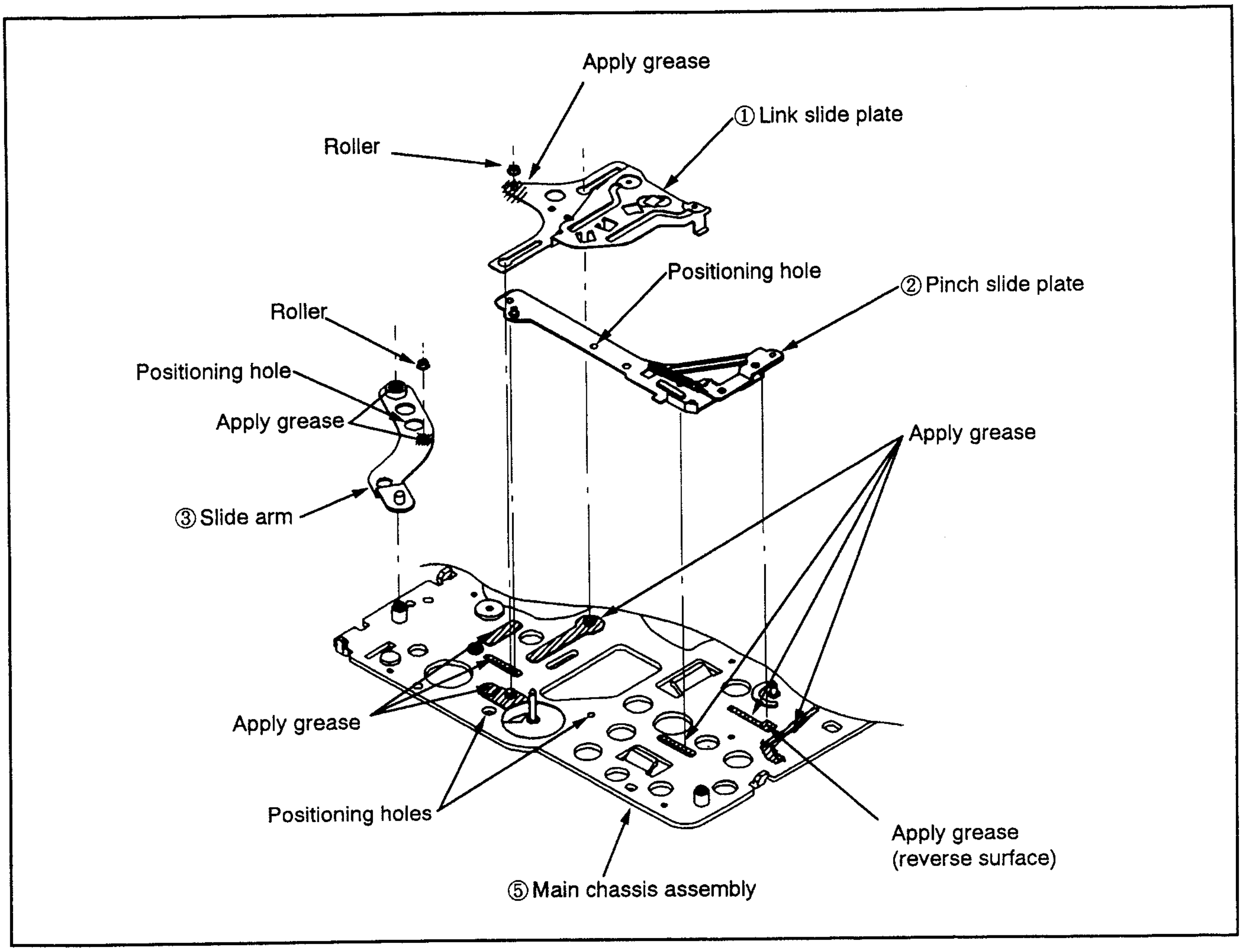
1. Select the [STAND BY] mode.
2. Remove the cassette mechanism, referring to [1].
3. Remove as far as the reel chassis assembly, referring to [2] – [4].
4. Remove the eject slide spring ②.
5. After sliding the eject slide plate ① fully to the front (in the direction of the arrow), lift it up to remove it.
6. Remove the screw ④.
7. Lift up the cam gear ③ gently to remove it from the main chassis assembly.

Reinstallation procedure

1. While aligning the mark at the tip of the tooth of the rotary switch with the mark at the vertex between two teeth of the cam gear ③ (refer to section [17]), install the cam gear ③ to the main chassis assembly so that the three pins of the slide arm roller, link slide plate and pinch slide plate (indicated in the illustration by arrows) are all in the cam plate groove.
2. Tighten the screw ④.
   (Tightening torque: 1.0 ± 0.1 kgf•cm)
3. Insert the eject slide ① so that the two bent parts are in the notches of the main chassis assembly, and then slide the eject slide plate ① towards you.
4. Install the eject slide spring ②.
5. Check to be sure the unit is in [STAND BY] mode using the mode selector.
6. Install as far as the LED bracket, referring to [2] – [4].
7. Install the cassette mechanism, referring to [1].

Notes:

- During replacement of parts, apply specified grease to the places indicated in the illustration.
- For details on phase matching and alignment of the cam plate groove, refer to section [20].


Apply grease
① Link slide plate
Roller
Positioning hole
② Pinch slide plate
Roller
Positioning hole
Apply grease
Apply grease
③ Slide arm
Apply grease
Positioning holes
Apply grease
(reverse surface)
⑤ Main chassis assembly

[19] Link slide plate, pinch slide plate and slide arm

Removal procedure

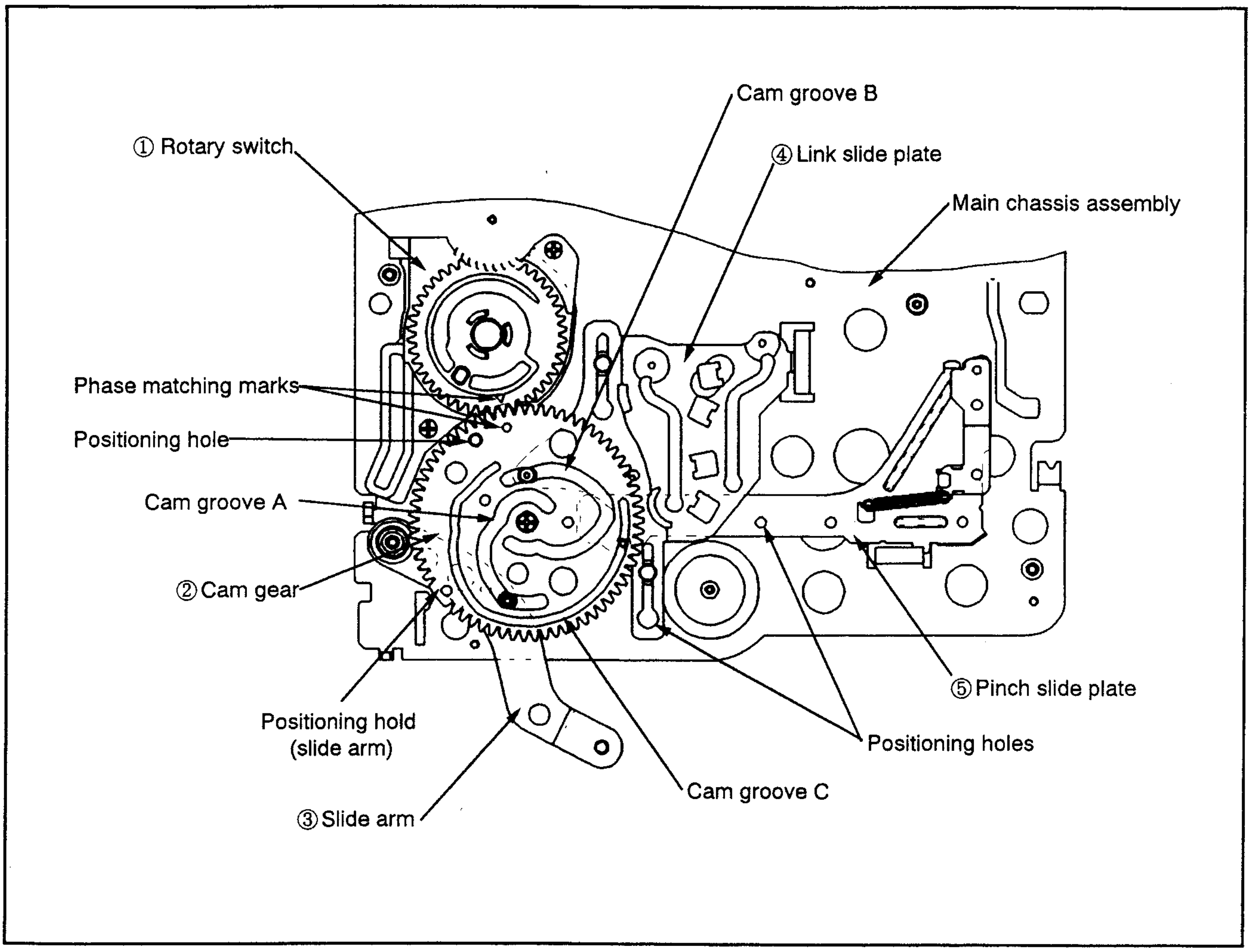
1. Select the [STAND BY] mode.
2. Remove the cassette mechanism, referring to [1].
3. Remove as far as the reel chassis assembly, referring to [2] – [4].
4. Remove the cam gear, referring to [18].
5. After sliding the link slide plate ① fully to the front, lift it up to remove it from the main chassis assembly ⑤.
6. After sliding the pinch slide plate ② fully to the right, lift it up to remove it from the main chassis assembly ⑤.
7. Lift up the slide arm ③ to remove it from the main chassis assembly ⑤.

Reinstallation procedure

1. Insert the slide arm ③ onto the boss of the main chassis assembly ⑤, and align the positioning hole with the lower main chassis hole.
2. Insert the pinch slide plate ② onto the main chassis assembly ⑤ so that the dowel on the reverse side and the round section at the left of the slot of the former are aligned with the slot and pin of the latter, and then slide the pinch slide plate ② to the left so that the positioning hole is aligned with the lower main chassis hole.
3. Insert the link slide plate ① so that the two round sections at the ends of the slots nearest you are aligned with the pins on the main chassis assembly ⑤, and then slide the link slide plate ① towards you so that the positioning hole is aligned with the lower main chassis hole.
4. Install the cam gear, referring to [18].
5. Check to be sure the unit is in [STAND BY] mode using the mode selector.
6. Install as far as the LED bracket, referring to [2] – [4].
7. Install the cassette mechanism, referring to [1].

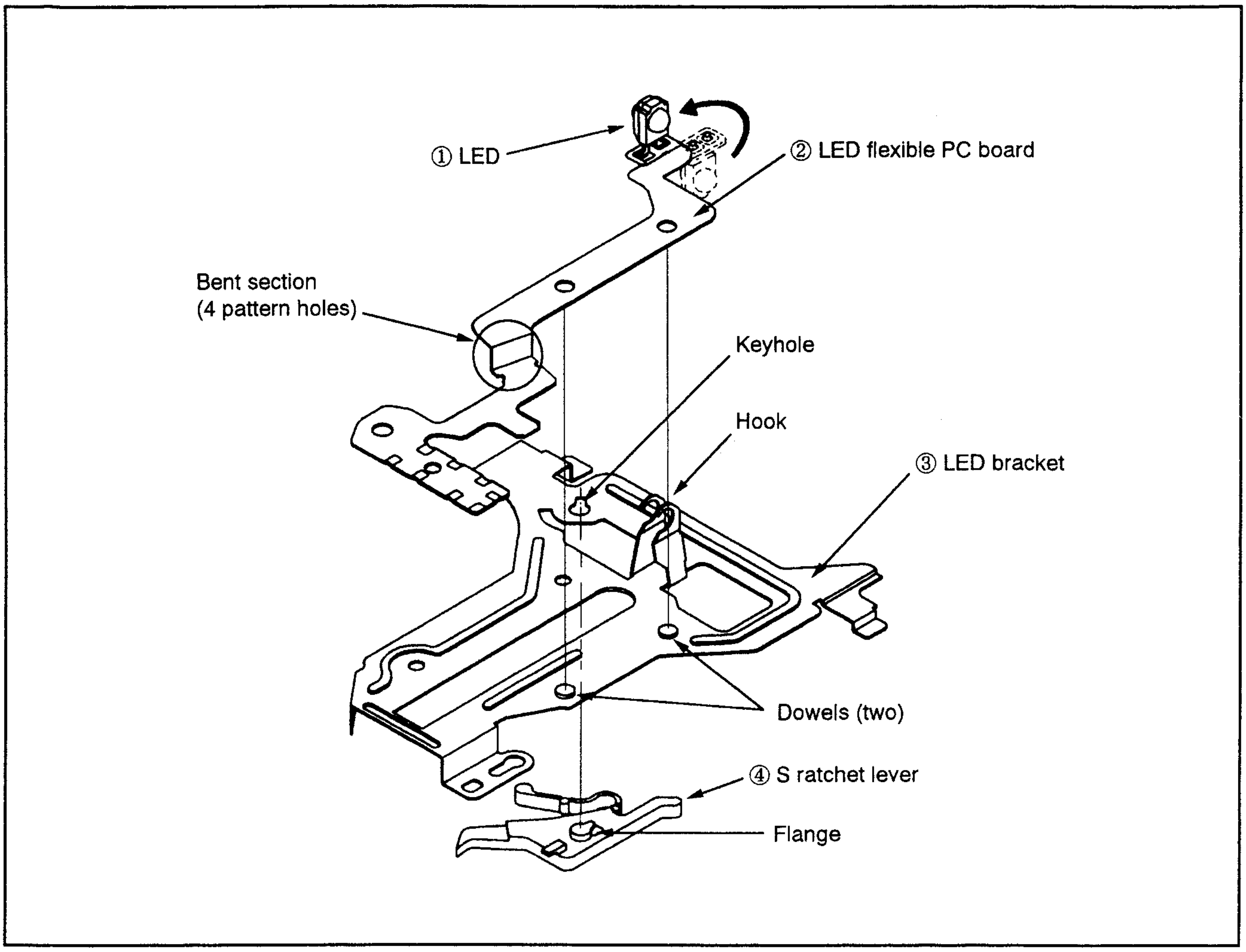
Notes:

- During replacement of parts, apply specified grease to the places indicated in the illustration.
- For details on positioning holes, refer to section [20].


Cam groove B
① Rotary switch
④ Link slide plate
Main chassis assembly
Phase matching marks
Positioning hole
Cam groove A
② Cam gear
⑤ Pinch slide plate
Positioning hold (slide arm)
Positioning holes
Cam groove C
③ Slide arm

[20] Phase matching of the loading drive system

1. The above illustration shows the positional relationships between parts in [STAND BY] mode.
2. Phase matching of the rotary switch ① and cam gear ②
   Install the rotary switch ① and the cam gear ② so that the phase matching marks on the gears of each respective part are aligned.
   When in [STAND BY] mode, the gears with the phase matching marks will be aligned exactly.
3. Grooves of cam gear ②
   The respective grooves of the cam gear correspond as follows.
   Cam groove A ... Slide arm ③ roller
   Cam groove B ... Link slide plate ④ roller
   Cam groove C ... Pinch slide plate ⑤ roller
4. Positioning holes
   Positioning holes are provided in the following parts. When in [STAND BY] mode, the positioning holes in these parts will be aligned with positioning holes in the main chassis assembly.
   Accordingly, by looking from directly above, it is possible to see through to the other side in this condition. Align the positioning holes in this way.
   (Parts with positioning holes)
   Cam gear ②
   Slide arm ③
   Link slide plate ④
   Pinch slide plate ⑤



[21] LED bracket sub-assembly

Removal procedure

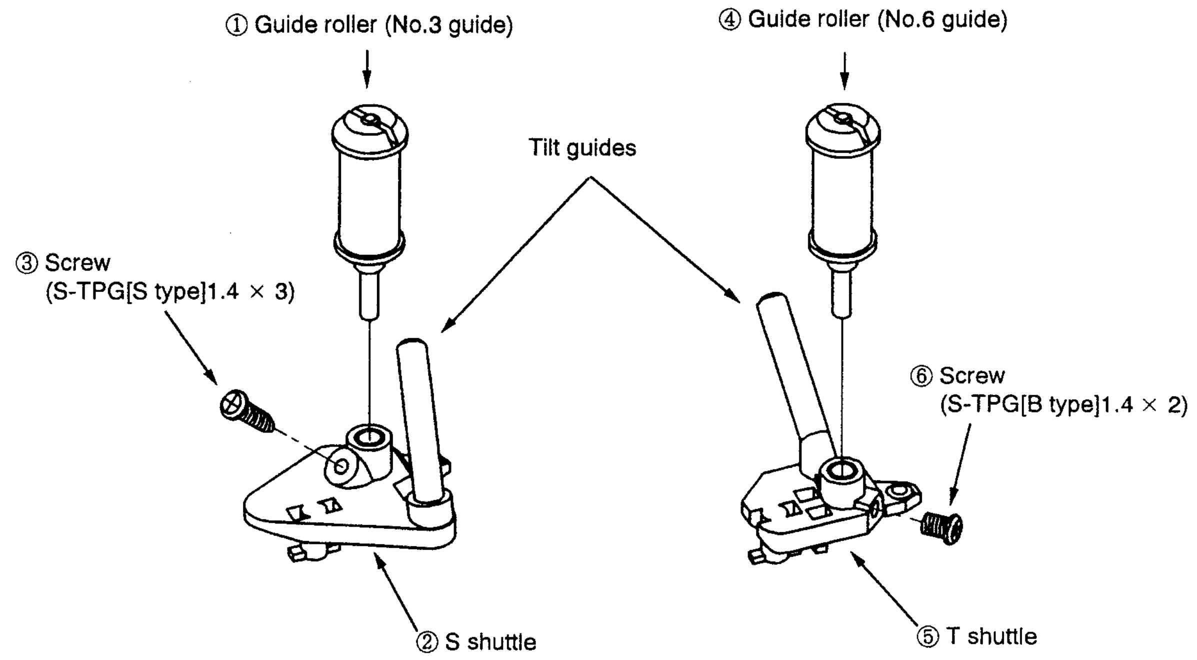
1. Slide the LED ① forward to remove it from the hook of the LED bracket ③.
2. Gently peel the LED flexible PC board ② from the LED bracket ③, while taking sufficient care not to break it.
3. Separate the two soldered points on the LED ① and remove it from the LED flexible PC board ②.
4. Turn the S ratchet lever ④ fully in a counterclockwise direction to align the flange with the keyhole, and then pull it down to remove it.

Reinstallation procedure

1. Insert the foot of the LED ① from the reverse side of the LED flexible PC board ② and solder the two points. After this, cut the foot of the LED ① so that the amount protruding from the reverse side of the LED flexible PC board ② is 1 mm or less.
2. Bend the LED flexible PC board ② in two places along the pattern holes.
3. Turn the LED ① 180° upward and insert it into the hook section of the LED bracket ③.
4. Attach the LED flexible PC board ② so that it is aligned with the two dowels on the LED bracket ③.
5. Align the flange of the S ratchet lever ④ with the keyhole of the LED bracket ③ and insert the flange. Then turn the S ratchet lever ④ in a clockwise direction until it cannot be removed.

Note:

- If there is grease or other contamination adhering to the LED bracket surface where the LED flexible PC board is to be installed, clean it off with alcohol before re-installation.


① Guide roller (No.3 guide)
④ Guide roller (No.6 guide)
Tilt guides
③ Screw
(S-TPG[S type]1.4 × 3)
⑥ Screw
(S-TPG[B type]1.4 × 2)
② S shuttle
⑤ T shuttle

[22] S and T shuttle sub-assemblies

Removal procedure

1. Loosen the screw ③.
2. Turn the guide roller ① in a counterclockwise direction, and then lift it up to remove it from the S shuttle ②.
3. Loosen the screw ⑥.
4. Turn the guide roller ④ in a counterclockwise direction, and then lift it up to remove it from the T shuttle ⑤.

Note:

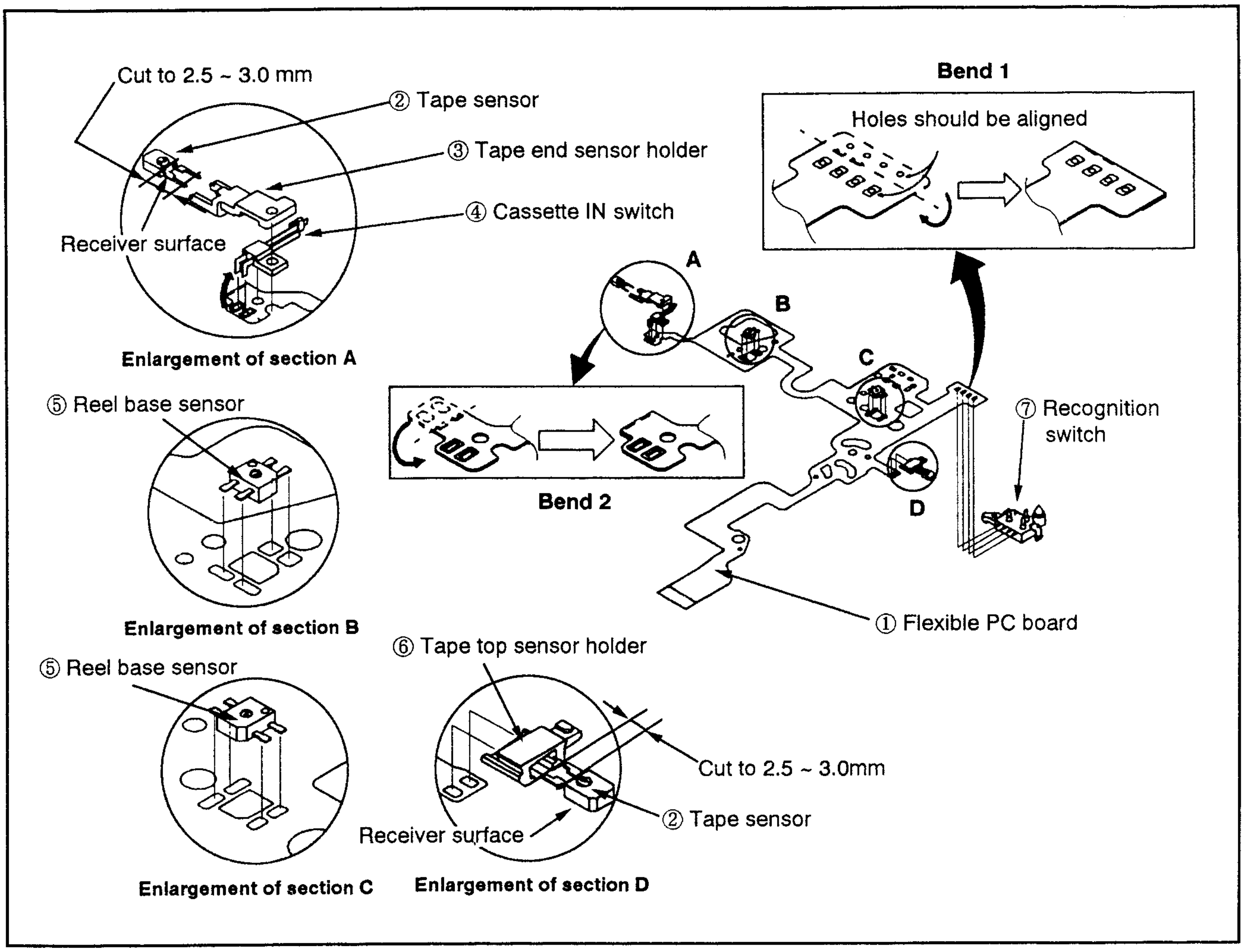
- Screw ③ needs only to be loosened; it should not be removed.

Reinstallation procedure

1. Gently turn the guide roller ① while inserting it into the S shuttle ② as far as it will go.
2. Turn the guide roller ① two revolutions (720°) in the counterclockwise direction to preset the height.
3. Tighten the screw ③ to secure the guide roller ①. (Tightening torque: 0.45 ± 0.05 kgf•cm)
4. Gently turn the guide roller ④ while inserting it into the T shuttle ⑤ as far as it will go.
5. Turn the guide roller ④ two revolutions (720°) in the counterclockwise direction to preset the height.
6. Tighten the screw ⑥ to secure the guide roller ④. (Tightening torque: 0.45 ± 0.05 kgf•cm)

Note:

- Be particularly careful not to damage or gouge the guide rollers and tilt guides.


Cut to 2.5 ~ 3.0 mm
② Tape sensor
③ Tape end sensor holder
④ Cassette IN switch
Receiver surface
Enlargement of section A
Bend 1
Holes should be aligned
A
B
C
D
⑦ Recognition switch
⑤ Reel base sensor
Bend 2
Enlargement of section B
① Flexible PC board
⑤ Reel base sensor
⑥ Tape top sensor holder
Cut to 2.5 ~ 3.0mm
② Tape sensor
Receiver surface
Enlargement of section C
Enlargement of section D

[23] Flexible PC board sub-assembly

Tape end sensor and cassette IN switch removal procedure

1. Separate the two soldered points on the tape sensor ② and then remove the tape sensor ②.
2. Remove the tape end sensor holder ③.
3. Separate the two soldered points on the cassette IN switch ④ and then remove it from the flexible PC board ①.

Reel base sensor removal procedure (2 places)

1. Separate the four soldered points on the reel base sensor ⑤ and then remove it from the flexible PC board ①.

Tape top sensor removal procedure

1. Separate the two soldered points on the tape sensor ② and then remove the tape sensor ②.
2. Remove the tape top sensor holder ⑥.

Recognition switch removal procedure

1. Separate the four soldered points on the recognition switch ⑦ and then remove it from the flexible PC board ①.

Tape end sensor and cassette IN switch reinstallation procedure

1. Bend the flexible PC board ① at section A as shown in the illustration (bend 2).
2. Align the cassette IN switch ④ with the positioning holes and dowels, and then solder the two points.
3. Install the tape end sensor holder ③ to the cassette IN switch ④.
4. Insert the tape sensor ② into the tape end sensor holder ③, and then solder the two points.

Reel base sensor reinstallation procedure (2 places)

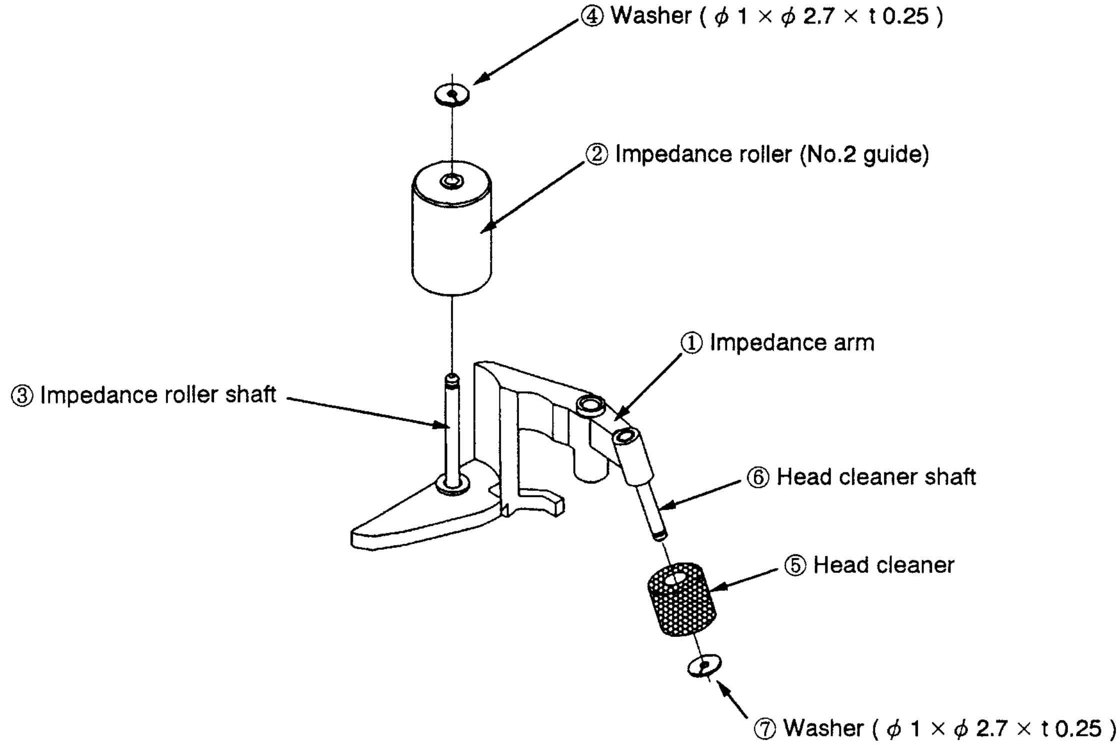
1. Align one of the bevelled sections of the reel base sensor ⑤ with the bevelled section in the sensor mounting hole of the flexible PC board ①, and then solder the four points. The height of the soldering at this time should be lower than the height of the reel base sensor ⑤.

Tape top sensor reinstallation procedure

1. Insert the tape sensor ② into the tape top sensor holder ⑥.
2. Insert the flexible PC board ① between the terminals of the tape sensor ② and the tape top sensor holder ⑥, and then solder the two points.

Recognition switch reinstallation procedure

1. Bend the flexible PC board ① as shown in the illustration (bend 1).
2. Insert the terminals of the recognition switch ⑦ into the terminal holes in the flexible PC board ①, and then solder the four points.


④ Washer (ϕ 1 × ϕ 2.7 × t 0.25)
② Impedance roller (No.2 guide)
① Impedance arm
③ Impedance roller shaft
⑥ Head cleaner shaft
⑤ Head cleaner
⑦ Washer (ϕ 1 × ϕ 2.7 × t 0.25)

[24] Impedance arm sub-assembly

Removal procedure

1. Remove the washer ④.
2. Lift up the impedance roller ② to remove it from the impedance roller shaft ③.
3. Remove the washer ⑦.
4. Remove the head cleaner ⑤ from the head cleaner shaft ⑥.

Note:

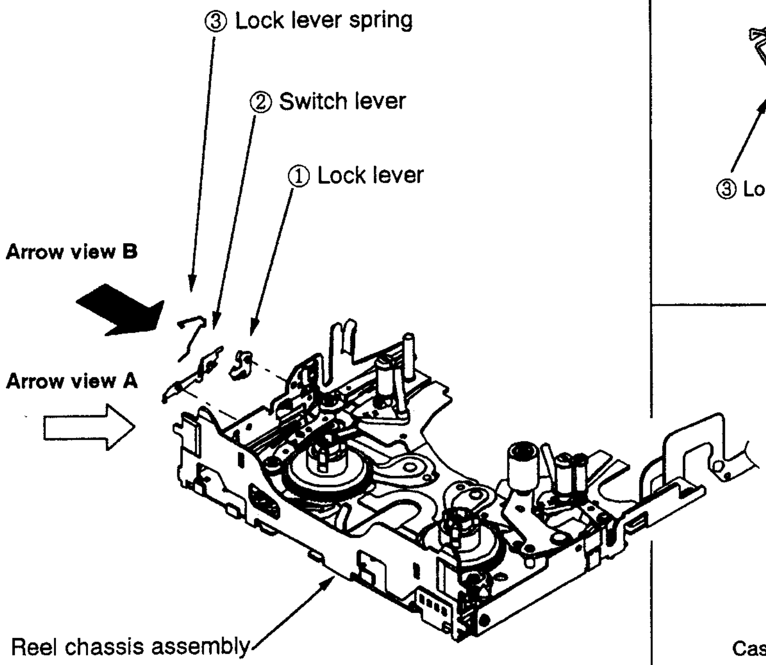
- When removing the impedance roller and head cleaner, be careful not to damage or gouge them or allow grease or other rubbish to get on them.

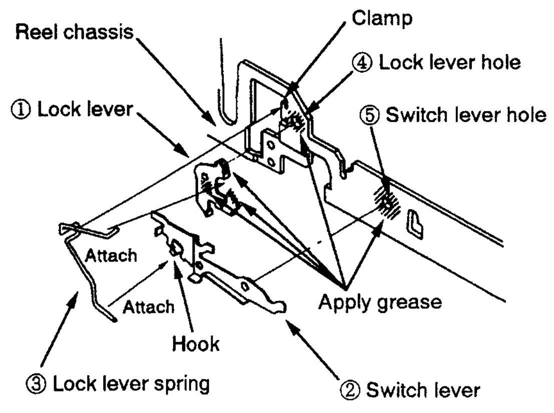
Reinstallation procedure

1. Insert the impedance roller ② onto the impedance roller shaft ③.
2. Secure with the washer ④.
3. Insert the head cleaner ⑤ onto the head cleaner shaft ⑥.
4. Secure with the washer ⑦.

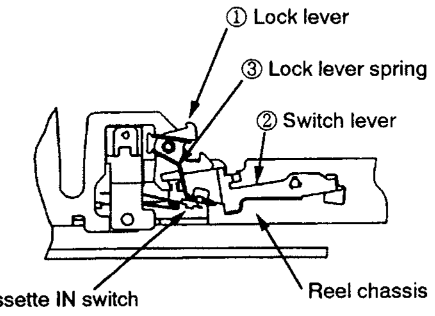
Note:

- When reinstalling the impedance roller and head cleaner, be careful not to damage or gouge them or allow grease or other rubbish to get on them.


③ Lock lever spring
② Switch lever
① Lock lever
Arrow view B
Arrow view A
Reel chassis assembly


Reel chassis
Clamp
④ Lock lever hole
① Lock lever
⑤ Switch lever hole
Attach
Attach
Apply grease
Hook
③ Lock lever spring
② Switch lever

Arrow view A


① Lock lever
③ Lock lever spring
② Switch lever
Cassette IN switch
Reel chassis

Arrow view B (assembly drawing)

[25] Lock lever and switch lever sub-assembly

Removal procedure

1. Remove the lock lever spring ③.
2. Remove the switch lever ② from the reel chassis.
3. Remove the lock lever ① from the reel chassis.

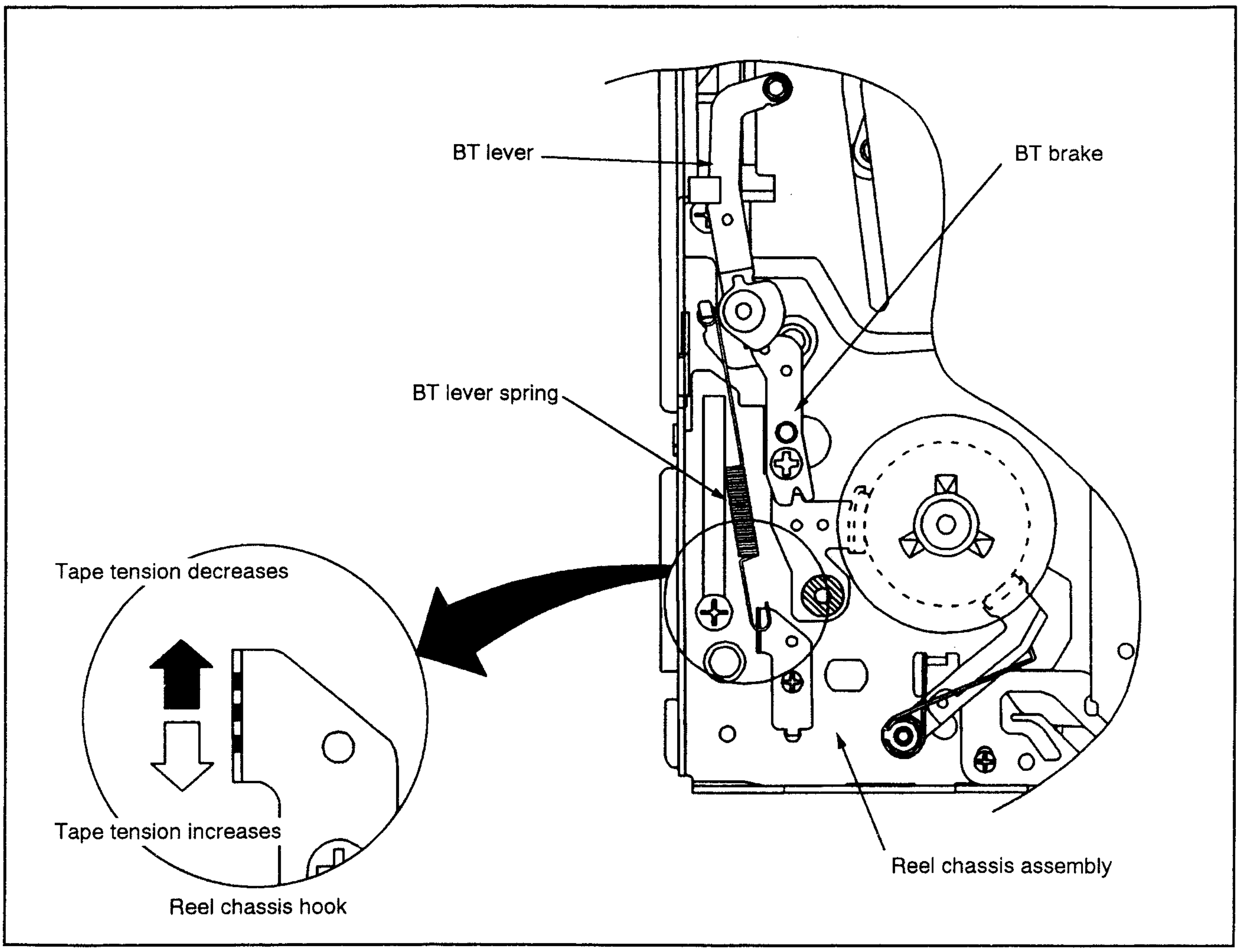
Reinstallation procedure

1. Insert the projection of the lock lever ① into the lock lever hole ④ in the reel chassis.
2. Insert the projection of the switch lever ② into the switch lever hole ⑤ in the reel chassis.
3. Attach one end of the lock lever spring ③ to the lock lever ①, and attach the other end to the hook of the switch lever ②.
4. Press the switch lever ② and check to be sure that the contact points of the cassette IN switch are contacting.

Note:

- During replacement of parts, apply specified grease to the places indicated in the illustration.

4. ADJUSTMENT



[FWD Back Tension Adjustment]

Confirm that the torque value for the S reel base is 6 - 12 gf•cm when a FWD/RVS takeup torque cassette is loaded and the unit is in PLAY mode. If the torque is outside these values, change the hooking position of the BT lever spring to adjust so that the value is within the standard.

- **If the torque value is lower than the standard**
  Move the hooking position of the BT lever spring in the direction of the white arrow in the figure to increase the tape tension.
- **If the torque value is higher than the standard**
  Move the hooking position of the BT lever spring in the direction of the black arrow in the figure to decrease the tape tension.

[Checking FWD and RVS torque]

(1) Set the FWD/RVS takeup torque cassette.
(2) Confirm that the torque value of the T reel base is 6 - 18 gf•cm during PLAY mode.
(3) Confirm that the torque value of the S reel base is 22 - 44 gf•cm during REV mode.
(4) Confirm that the torque value of the T reel base is 10 - 20 gf•cm during REV mode.
(5) Confirm that the torque value of the S reel base is 20 - 38 gf•cm during REC REVIEW(MINUS SCENE SEARCH) mode.
(6) If any of the above values are insufficient, replace the respective reel base.

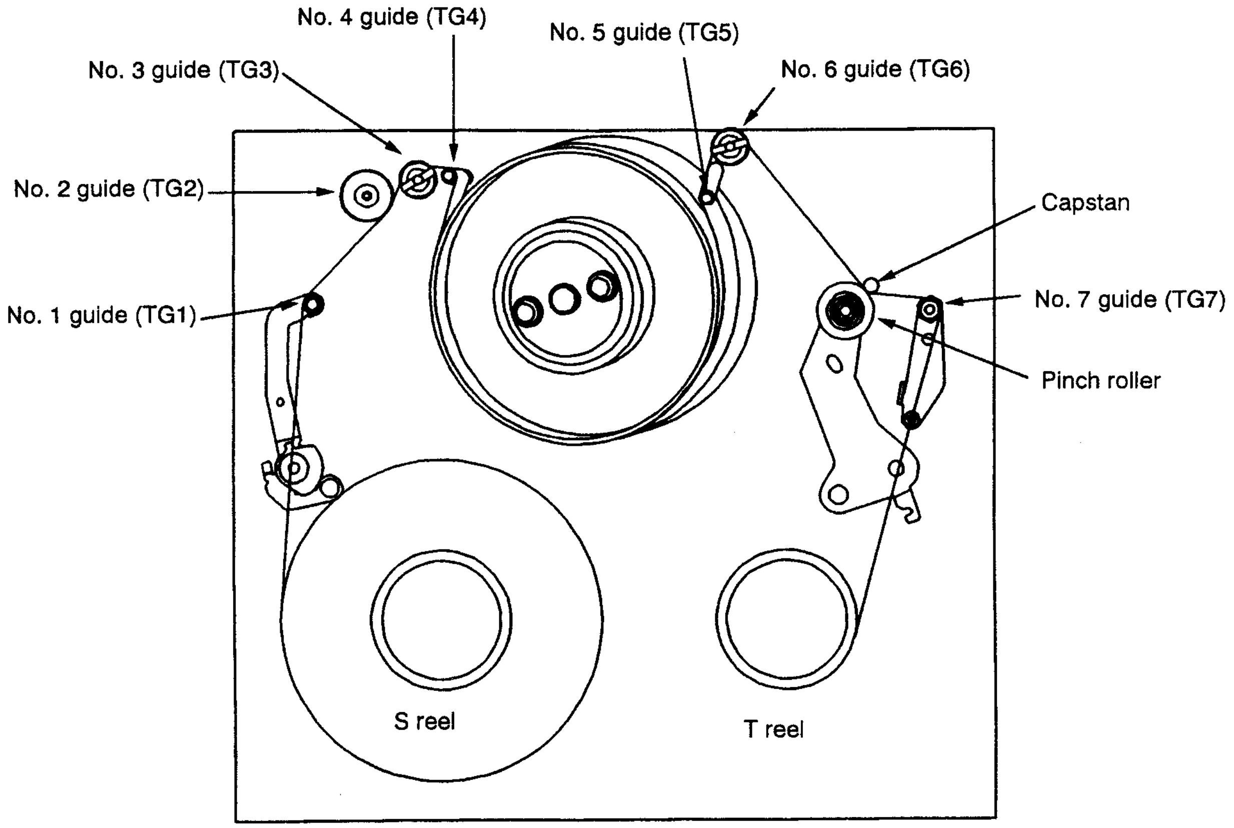


Fig. 1. Tape path schematic diagram

[1] Outline of Tape Path Adjustment

The 8 mm video system employs high-precision tracking ATF (automatic track finding) which uses 4 pilot signals to quickly control tape speed. This eliminates the need for a tracking adjustment knob, and it also makes accurate tracing possible. However, the ATF system has a minor disadvantage in adjustment of the tape path system, because ATF corrects small misalignments in head tracing by default, so that perfect adjustment is not possible. The reason for this is because when fine tracking adjustments are made, it is necessary to create conditions where the head drum reads the tape in a slightly shifted condition (shift track) instead of reading the tape exactly. And in this condition, by carrying out tracking adjustment by means of an envelope, adjustments with a higher degree of accuracy are possible. Because of this, this RS mechanism enables the shift track mode to be set easily without using special tools and the ATF can be force-operated to carry out fine adjustment, whereas previously a shift track tool was used to simulate tracking conditions so as to carry out fine adjustment. The actual method of operation is explained in [2] Preparation for Adjustment and [3] Adjustment.

Note: The shift track direction in this RS mechanism is opposite to the shift track direction used in previous units.

[2] Preparation for Adjustment (1)

2-1. Tape Path System

A schematic diagram of the tape path in the RS mechanism is shown in Fig.1.

2-2. Tape

The types of tape that are used for path adjustment are as follows.

Blank tape

PAL: P5-90MP
NTSC: P6-120MP

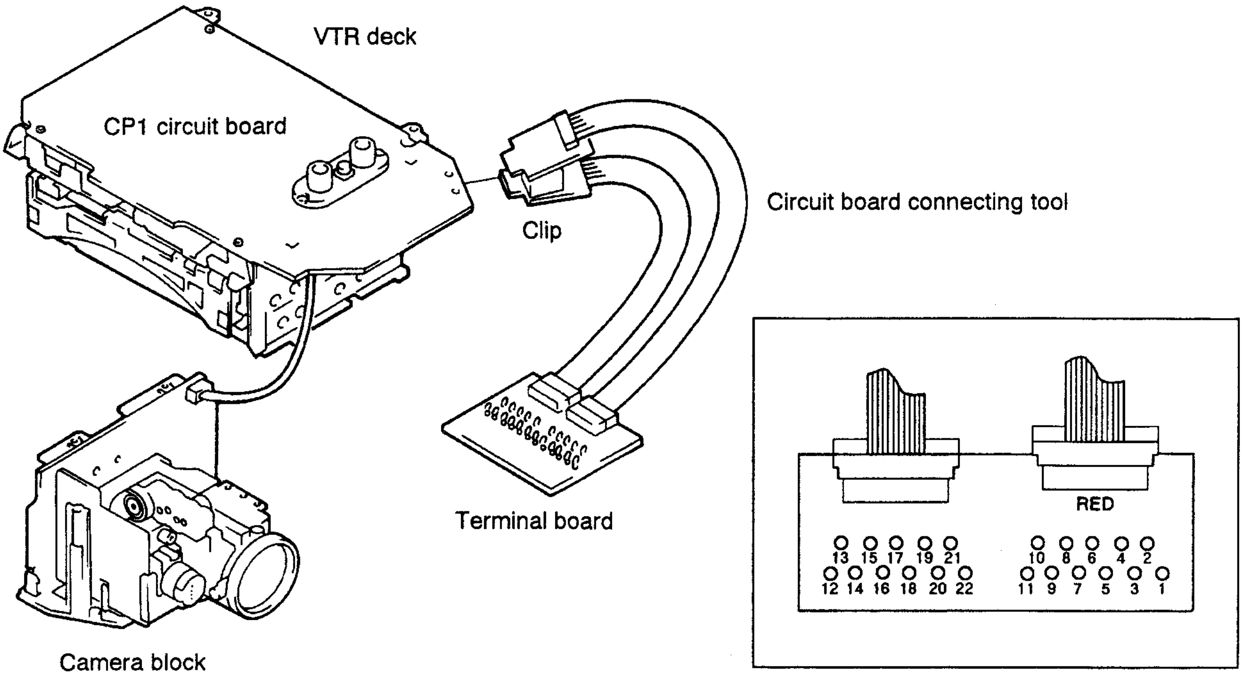
Tracking alignment tape

PAL: WR5-1CP
NTSC: WR5-1NP

2-3. Cleaning

Cleaning of the tape path system should be carried out before commencing and after completing tape path adjustment. The places to be cleaned are the tape contact surfaces such as the tape guides, head drum, capstan shaft and pinch roller. A cotton swab or chamois cloth soaked in cleaning liquid (alcohol) should be used for cleaning.

VM-RZ2R Series Models Only



Pin layout on terminal board

Fig. 2. Connection diagram for the tape path adjustment tool

v[2] Preparation for Adjustment (2)

2-4. Envelope Waveform Output Method

The envelope waveform can be output by connecting the output terminals on the CP1 circuit board to an oscilloscope. To actually do this, connect a tape path adjustment tool in between.

Connection method

(1) Clamp the clip of the tape path adjustment tool to terminal J1005 of the CP1 circuit board so that the positioning holes are aligned.

(2) Connect the terminals of the tape path adjustment tool to an oscilloscope. The terminals to be connected at this time are as follows.

2	Switching pulse	(RF SW1)
3	Envelope	(PB RF)
11	Ground	(GND)

2-5. PCM Range Output Method

After the envelope waveform has been output according to the method outlined in 2-4., if the two terminals indicated below of the tape path adjustment tool are shorted, the head output will be fixed at channel B and an envelope waveform which includes the PCM range of channel B will be output.

4 ... RF SW2
11 ... GND

Tape path adjustment should be carried out with this envelope waveform which includes the PCM range. However, in other cases, the PCM region will not be output.

2-6. Setting the Test Mode

To set test mode, short the two terminals indicated below of the tape path adjustment tool.

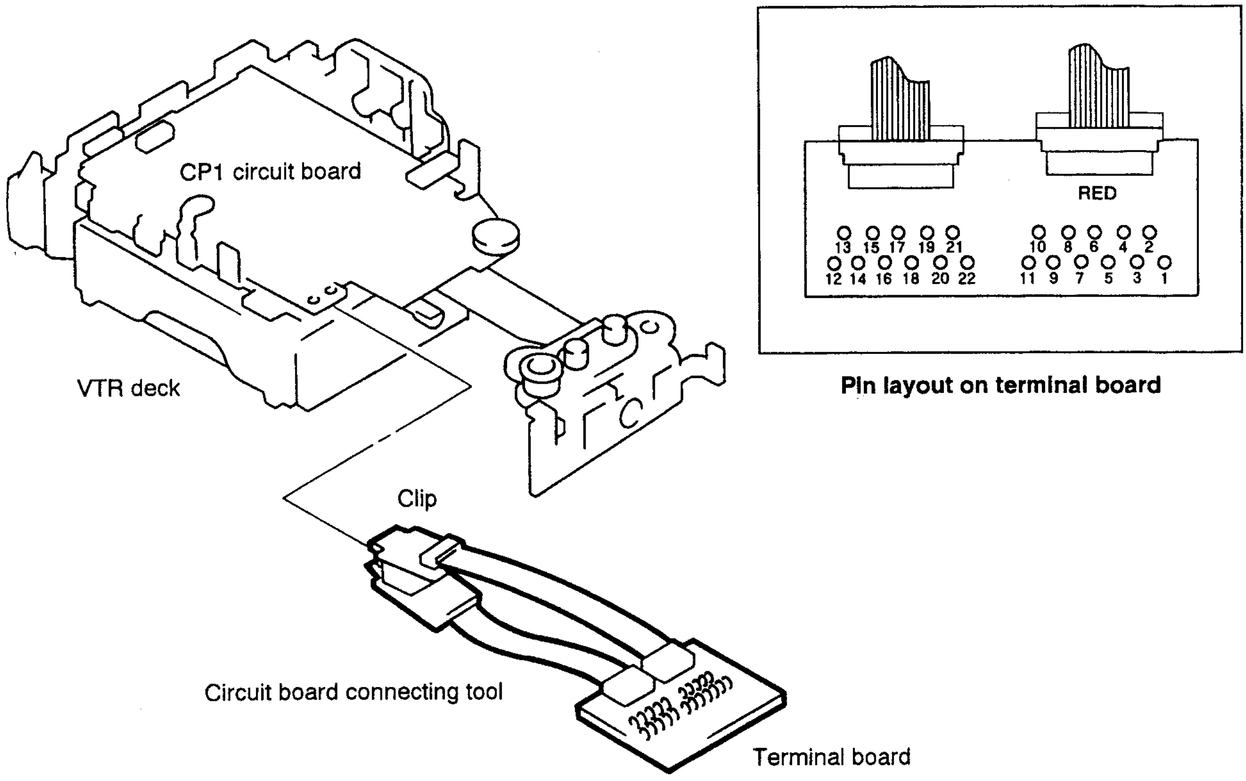
14 : TEST
12 : GND

2-7. Setting the Shift Track Mode

After setting the test mode by the method in 2-6., press the START/STOP button on the PW1 circuit board once to set the shift track mode. When this mode is set, only the fixed amount of track shift will occur, and the result of this will be that the amplitude of the envelope waveform will become 2/3 that of the previous waveform.

If the PLAY button on the CP1 circuit board is pressed or if test mode is canceled during the shift track mode, the shift track mode will be canceled.

(Furthermore, the START/STOP and PLAY buttons on the remote control can also be used.)



Pin layout on terminal board

Fig. 2. Connection diagram for the tape path adjustment tool

[2] Preparation for Adjustment (2)

2-4. Envelope Waveform Output Method

The envelope waveform can be output by connecting the output terminals on the CP1 circuit board to an oscilloscope. To actually do this, connect a tape path adjustment tool in between.

Connection method

(1) Clamp the clip of the tape path adjustment tool to terminal J1005 of the CP1 circuit board so that the positioning holes are aligned.

(2) Connect the terminals of the tape path adjustment tool to an oscilloscope. The terminals to be connected at this time are as follows.

2	Switching pulse	(RF SW1)
3	Envelope	(PB RF)
11	Ground	(GND)

2-5. PCM Range Output Method

After the envelope waveform has been output according to the method outlined in 2-4., if the two terminals indicated below of the tape path adjustment tool are shorted, the head output will be fixed at channel B and an envelope waveform which includes the PCM range of channel B will be output.

4 ... RF SW2
11 ... GND

Tape path adjustment should be carried out with this envelope waveform which includes the PCM range. However, in other cases, the PCM range will not be output.

2-6. Setting the Test Mode

To set test mode, short the two terminals indicated below of the tape path adjustment tool.

14 : TEST
12 : GND

2-7. Setting the Shift Track Mode

After setting the test mode by the method in 2-6., press the START/STOP button on the PW1 circuit board once to set the shift track mode. When this mode is set, only the fixed amount of track shift will occur, and the result of this will be that the amplitude of the envelope waveform will become 2/3 that of the previous waveform.

If the PLAY button on the CP1 circuit board is pressed or if test mode is canceled during the shift track mode, the shift track mode will be canceled.

(Furthermore, the START/STOP and PLAY buttons on the remote control can also be used.)

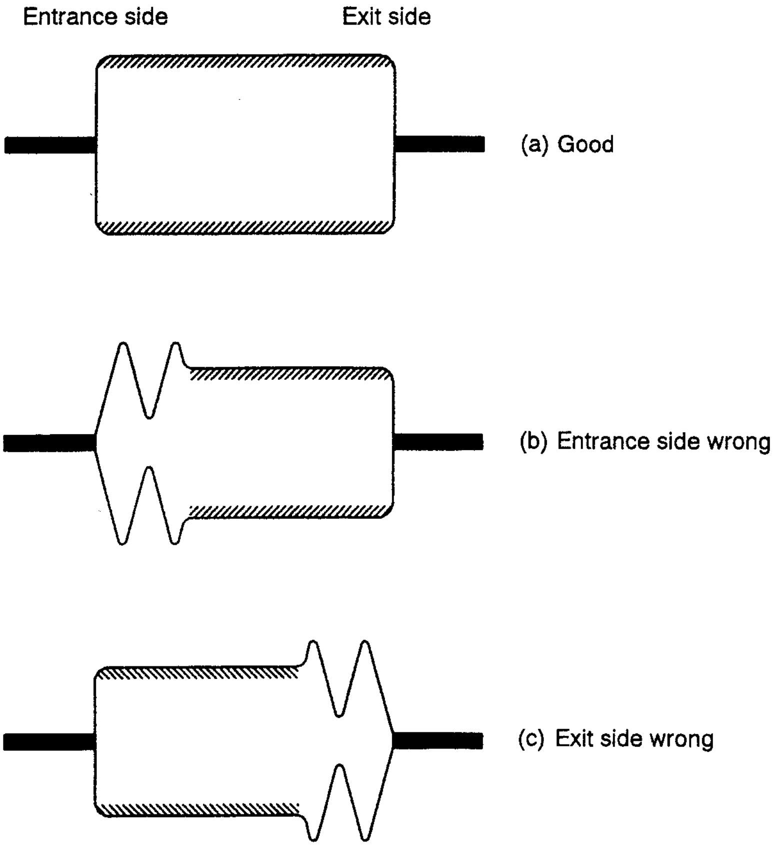


Fig. 3.

[3] Adjustment (1)

3-1. Tracking Coarse Adjustment

(1) Play back the tracking alignment tape to output the envelope waveform to which the PCM range has been added to the oscilloscope.

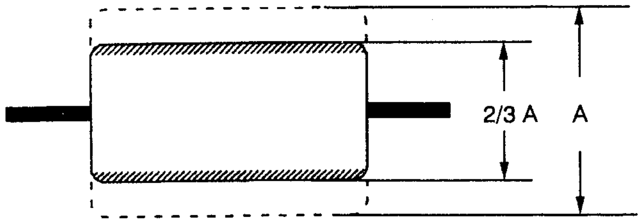
(2) Turn the knob on the oscilloscope so that the amplitude of the waveform is approximately at the 6 mark on the oscilloscope.

(3) At this time, confirm that the waveform has been flattened as shown in Fig. 3, (a) above. If the waveform is flattened, tracking coarse adjustment is completed, so proceed to "3-2. Tracking Fine Adjustment." If it is not flattened, continue with the following steps.

(4) If the entrance side is wrong, as shown in Fig. 3, (b) above, turn the No. 3 guide to nearly flatten the waveform at the entrance side.

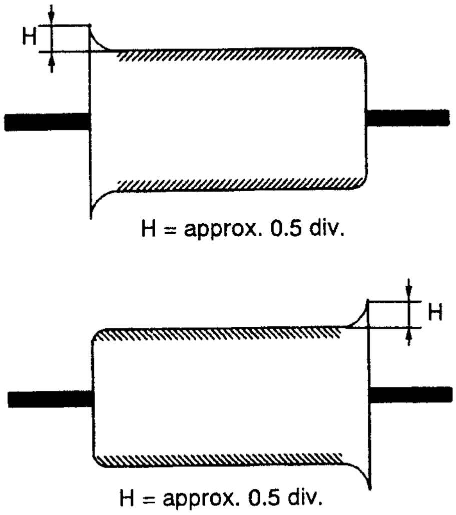
(5) If the exit side is wrong, as shown in Fig. 3, (c) above, turn the No. 6 guide to nearly flatten the waveform at the exit side.

(6) After completing the adjustments in steps (4) and (5), confirm that the waveform is flattened as shown in Fig. 3, (a).



Envelope in the shift condition

Fig. 4.



(a) Slightly raised at the entrance

H = approx. 0.5 div.

(b) Slightly raised at the exit side

H = approx. 0.5 div.

Fig. 5.

[3] Adjustment (2)

3-2. Tracking Fine Adjustment

(1) Play back the tracking alignment tape to output the envelope waveform to which the PCM range has been added to the oscilloscope.

(2) Turn the knob on the oscilloscope so that the amplitude of the waveform is approximately at the 6 mark on the oscilloscope.

(3) Set to the shift track mode and confirm that the waveform amplitude is exactly at the 4th step (1). (Refer to Fig. 4.)

(4) Turn the No. 3 guide (TG3) in a clockwise direction to adjust so that the envelope waveform is slightly raised at the entrance side. (Refer to Fig. 5, (a).)

(5) While turning the No. 3 guide (TG3) in a counter-clockwise direction, adjust the entrance side of the waveform by flattening it to the dead zone position (2).

(6) Turn the No. 6 guide (TG6) in a clockwise direction to adjust so that the envelope waveform is slightly suppressed at the exit side. (Refer to Fig. 5, (b).)

(7) While turning the No. 6 guide (TG6) in a counter-clockwise direction, adjust the exit side of the waveform by flattening it to the dead zone position.

Note 1: Shift track amount adjustment method

Because of the settings, sometimes the waveform amplitude will not be exactly at the 4th step in the shift trackmode. In such cases, adjust the shift track amount by the following method to align it exactly with the 4th step.

- If the amplitude is lower than 4, press the **FF (REW)** button while pressing the START/STOP button to increase the amplitude of the waveform.
- If the amplitude is higher than 4, press the **REW (FF)** button while pressing the START/STOP button to decrease the ampli- tude of the waveform.

Note ( ) : VM-RZ2R series models only

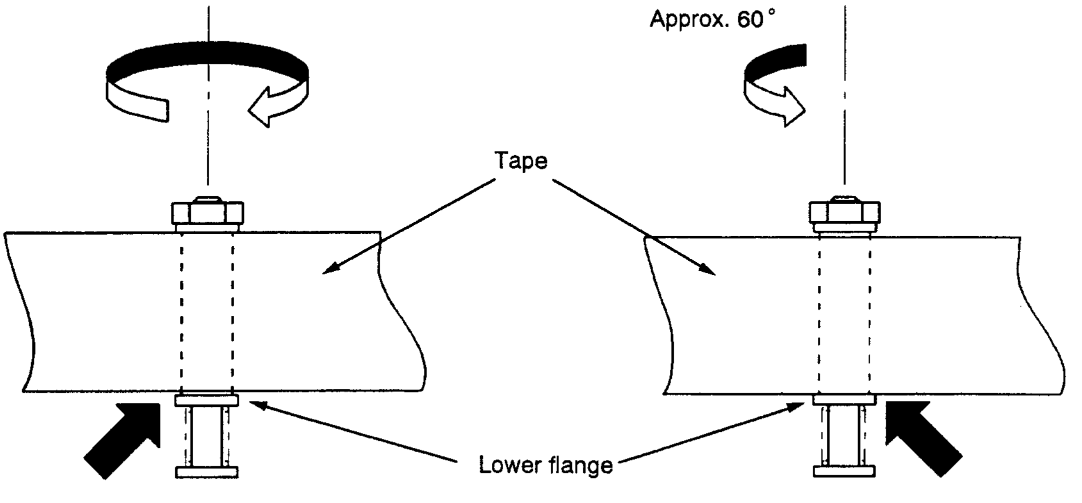
Note 2: Dead zone position

This refers to the position where slight movements of the guide have almost no effect at all on the envelope waveform.

Note 3:

If the check in step (3) of 4-2. shows that the rising of the waveform to the PLAY position when switching from REV mode takes longer than 3 seconds, or if there are fluctuations in the waveform at the entrance side, adjust the entrance side to a maximum of H=0.8 div. and gently turn the No. 3 guide in a clockwise direction to readjust the envelope waveform.

Furthermore, make sure that no dropout occurs at the entrance side of the envelope waveform at this time.



(a) Gap between tape and lower flange

(b) Correct position of tape at lower flange

Fig. 6.

[3] Adjustment (3)

3-3. No. 7 Guide (TG7) Height Adjustment

(1) First record a signal on a blank tape, and then play back this tape.

(2) Turn the hexagonal nut for height adjustment on the No. 7 guide (TG7) in a clockwise direction until a gap appears between the lower flange of the No. 7 guide and the tape (refer to Fig. 6, (a)), and then adjust so that there is no slack in the tape between the No. 7 guide and the capstan motor.

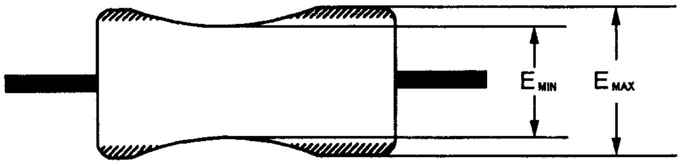
(3) Turn the hexagonal nut for height adjustment on the No. 7 guide (TG7) approximately 60 ° in a counterclockwise direction so that the tape is restrained by the lower flange of No. 7 guide. (Refer to Fig. 6, (b).)

(4) Confirm that the slack in the tape between the capstan motor and the No. 7 guide is 0.5 mm or less in CUE mode.

(5) Confirm that the slack in the tape between the capstan motor and the No. 6 guide is 0.5 mm or less in REV mode.

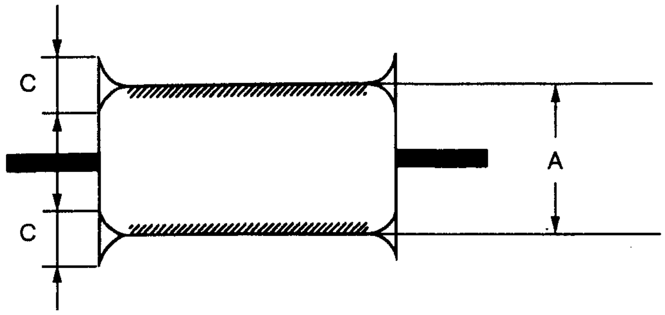
(6) If the tape slack is not 0.5 mm or less in steps (4) and (5), repeat steps (2) to (5) to obtain the standard slack.

Note: For the tape slack, refer to Fig. 13.



$$\frac{E_{MIN}}{E_{MAX}} \geqq 65\ (\%)$$

Fig. 7.



$$C \leqq 1/8A$$

Fig. 8.

[4] Checking After Adjustment (1)

4-1. Tracking Check

(Carry out with PCM range at OFF)

(1) Play back the tracking alignment tape to output the envelope waveform to the oscilloscope.

(2) Change to shift track mode and confirm that the envelope waveform is at the 4th step. If it is not, adjust the shift track amount to align the amplitude of the waveform with the 4th step.

(3) In this condition, confirm that the minimum amplitude value (E_{MIN}) is more than 65% of the maximum amplitude value (E_{MAX}). (Refer to Fig. 7.)

(4) Confirm that there is no great variation in the envelope waveform. In particular, confirm that the variation in amplitude of the waveform around the entrance side and exit side is 0.5 of a step or less. (Refer to Fig. 8.)

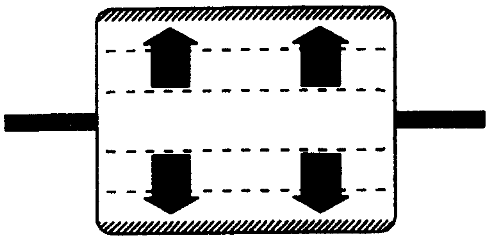


Fig. 9.

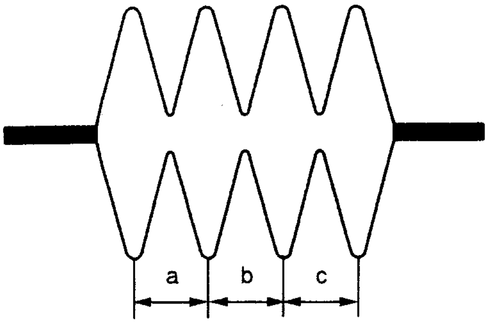


Fig. 10.

[4] Checking After Adjustment (2)

4-2. Rising Check

(1) Play back the tracking alignment tape to output the envelope waveform to the oscilloscope. At this time, cancel the shift track mode and the PCM range.

(2) Switch from STOP mode to PLAY mode. At this time, confirm that the envelope waveform rises up horizontally to the PLAY position within 3 seconds. (Refer to Fig. 9.)

(3) In the same way as in step (2), confirm that the envelope waveform rises up horizontally to the PLAY position within 3 seconds when switching from both CUE mode and REV mode to PLAY mode.

4-3. Noise Pitch Check

(1) Play back the tracking alignment tape to output the envelope waveform to the oscilloscope. At this time, cancel the shift track mode and the PCM range.

(2) Switch from PLAY mode to CUE mode and confirm that the peaks of the envelope waveform become equidistant after 5 seconds. Also, confirm that there is no transverse movement of the waveform. (Refer to Fig. 10.)

(3) Switch from PLAY mode to REV mode and confirm that the peaks of the waveform become equidistant after 5 seconds. Also, confirm that there is no transverse movement of the waveform. (Refer to Fig. 10.)

Note: If the results of "4-2. Rising Check" and "4-3. Noise Pitch Check" are not good, carry out the steps in "3-2. Tracking Fine Adjustment" once more.

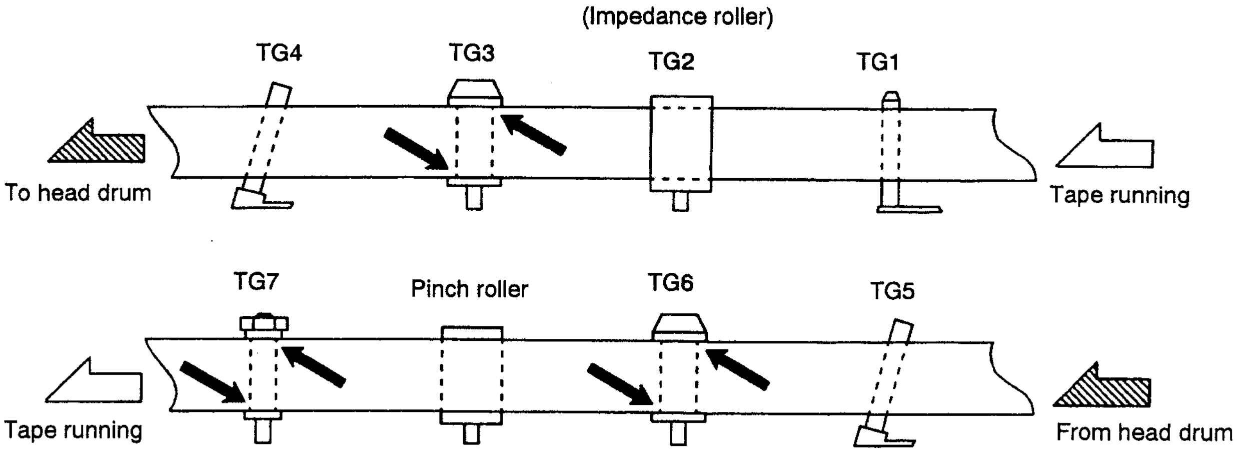
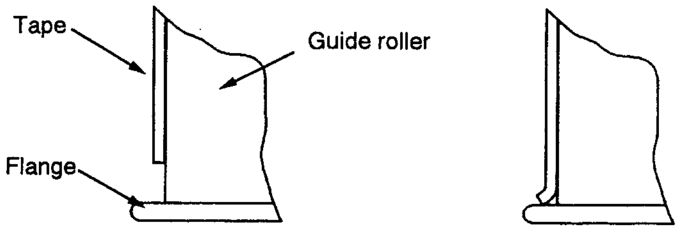

(Impedance roller)
TG4
TG3
TG2
TG1
To head drum
Tape running
TG7
Pinch roller
TG6
TG5
Tape running
From head drum

Fig. 11.


Tape
Guide roller
Flange

(a) Clearance (b) Curl

Fig. 12.

[4] Checking After Adjustment (3)

4-4. Tape Path Check (Clearance and Curl)

(1) First record a signal on a blank tape, and then play back this tape.

(2) Confirm that the clearance is not more than 0.3 mm and the curl is not more than 0.5 mm at the flanges (refer to the right) of the specified guides during PLAY mode.

(3) In the same way as in step (2), confirm that the clearance is not more than 0.3 mm and the curl is not more than 0.5 mm at the flanges of the specified guides during CUE and REV modes.

[Specified locations for clearance and curl]

Clearance (0.3 mm or less is OK)

... Upper and lower flanges of No. 3 guide
... Upper and lower flanges of No. 6 guide

Curl (0.5 mm or less is OK)

... Upper and lower flanges of No. 3 guide
... Upper and lower flanges of No. 6 guide
... Upper and lower flanges of No. 7 guide

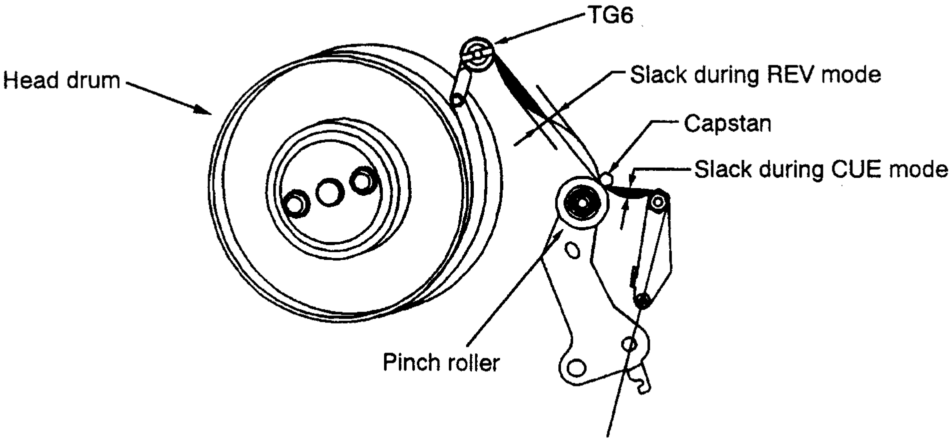
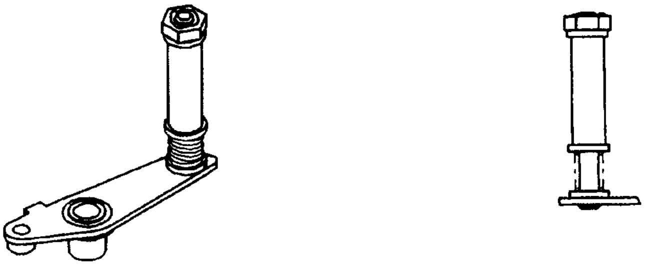


Fig. 13.



Should not protrude above nut

Should not be higher than screw section

Fig. 14.

[4] Checking After Adjustment (4)

4-5. Tape Path Check (Slack)

(1) First record a signal on a blank tape, and then play back this tape.

(2) Confirm that the slack in the tape between the capstan motor and the No. 7 guide is 0.5 mm or less in CUE mode.

(3) Confirm that the slack in the tape between the capstan motor and the No. 6 guide is 0.5 mm or less in REV mode.

(4) If the measurements in steps (2) and (3) are not good, carry out the procedure in "3-3. No. 7 Guide (TG7) Height Adjustment" once more.

[5] Completion of Adjustment

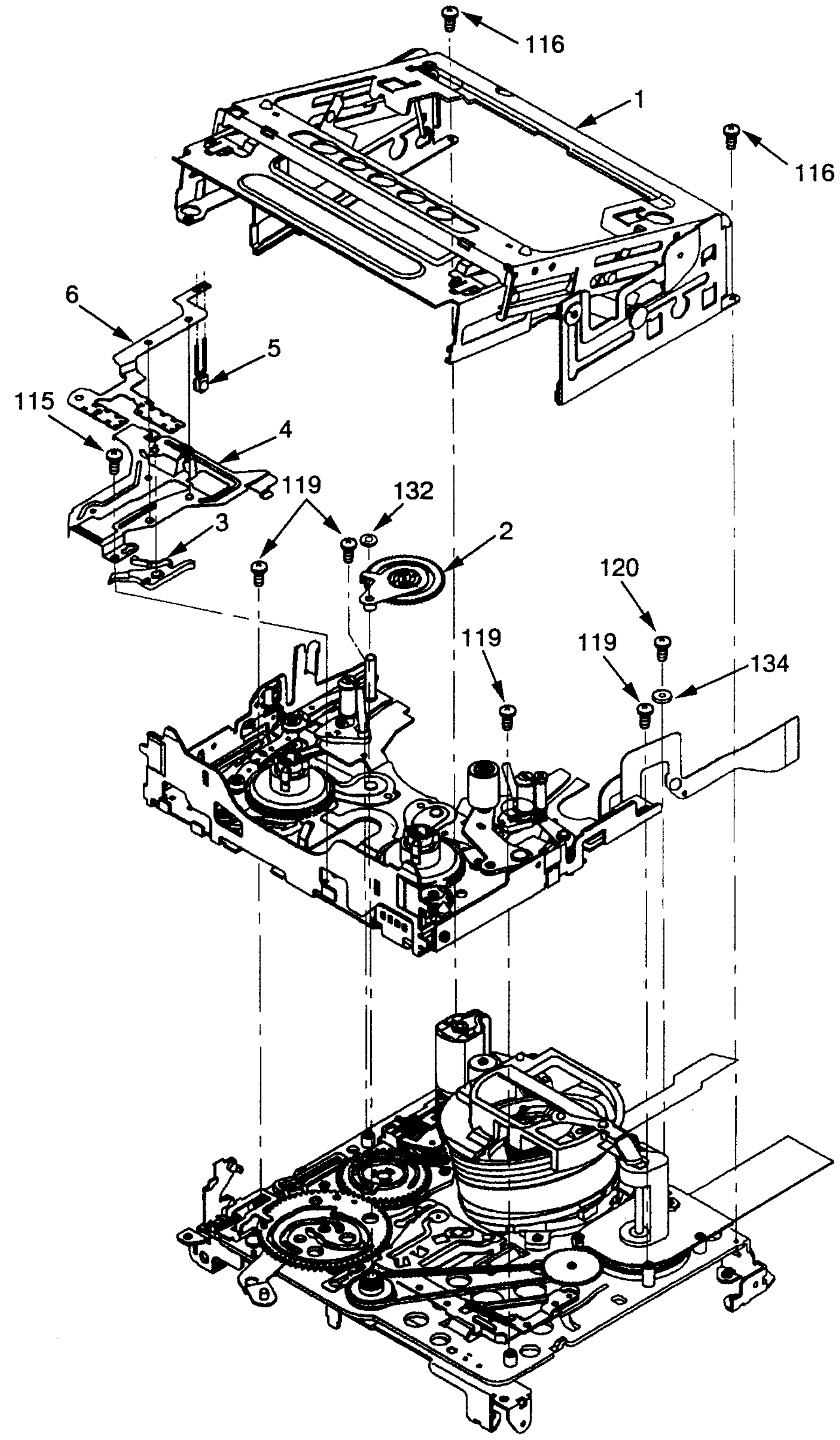
If [3] Adjustment and [4] Checking After Adjustment have been completed, apply a drop of bonding agent to the hexagonal nut of No. 7 guide (TG7) while referring to Fig. 14.

This completes the tape path adjustment.

[MECHANISM 1]

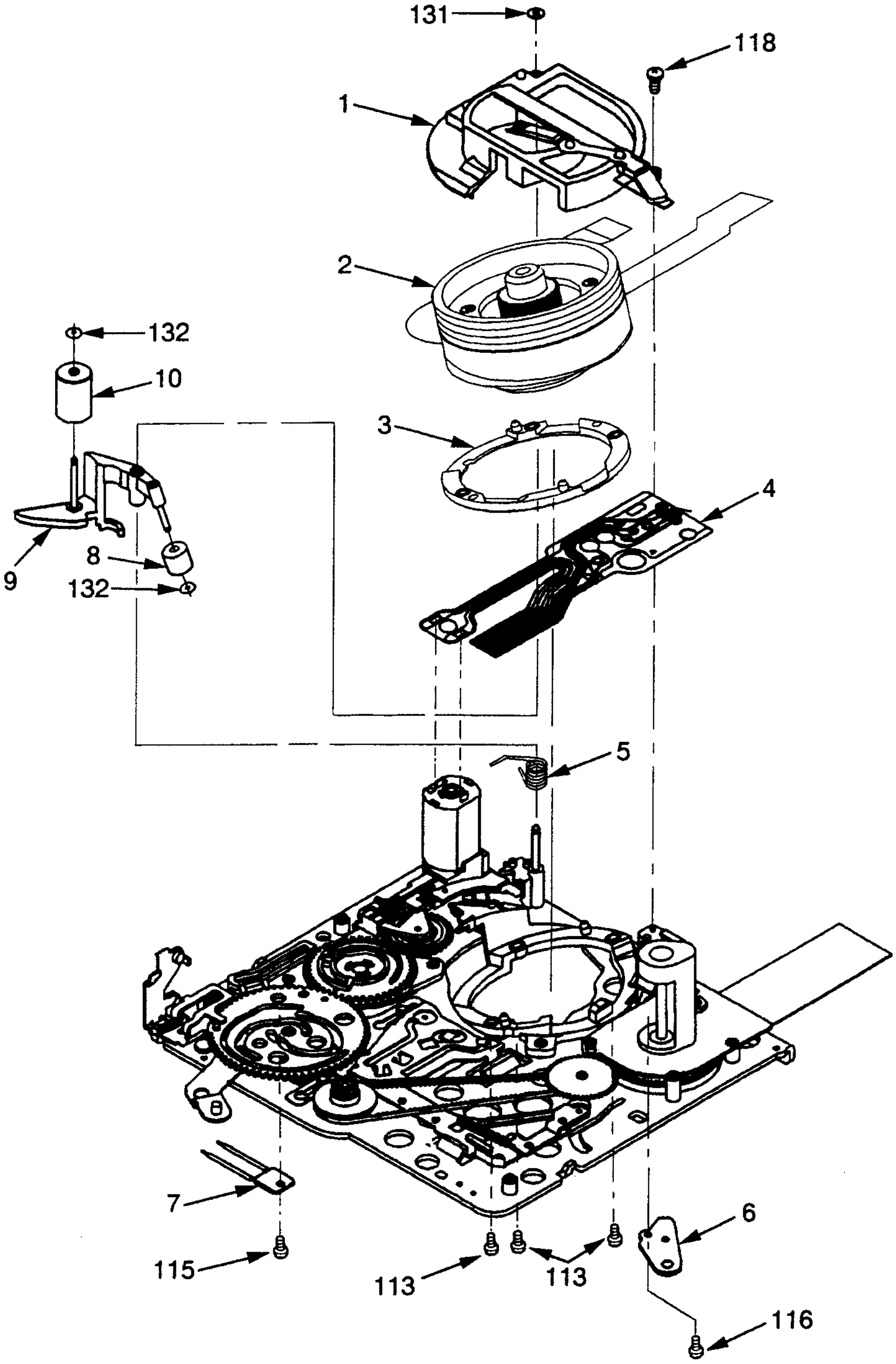
LOCATION	PARTS No.	DESCRIPTION
1	636 045 0745	COMPL, CASSETTE MECHA
2	636 045 3791	ASSY, LEVER IDLER
3	636 041 5232	LEVER, LATCH
4	636 041 5263	MOUNTING BRACKET
5	407 156 3402	LED GL453
6	636 045 5504	FLEXIBLE PWB, LED

LOCATION	PARTS No.	DESCRIPTION
115	411 155 6005	SCR S-TPG PAN PCS 1.4X2.2
116	411 154 3906	SCR S-TPG PAN PCS 1.4X3
119	412 051 3204	SPECIAL SCREW 1.4X2.5
120	412 046 7903	SPECIAL SCREW 1.4X3.0
132	412 046 8207	SPECIAL WASHER 1.0X0.25
134	412 046 8009	SPECIAL WASHER 1.5X0.2



[MECHANISM 2]

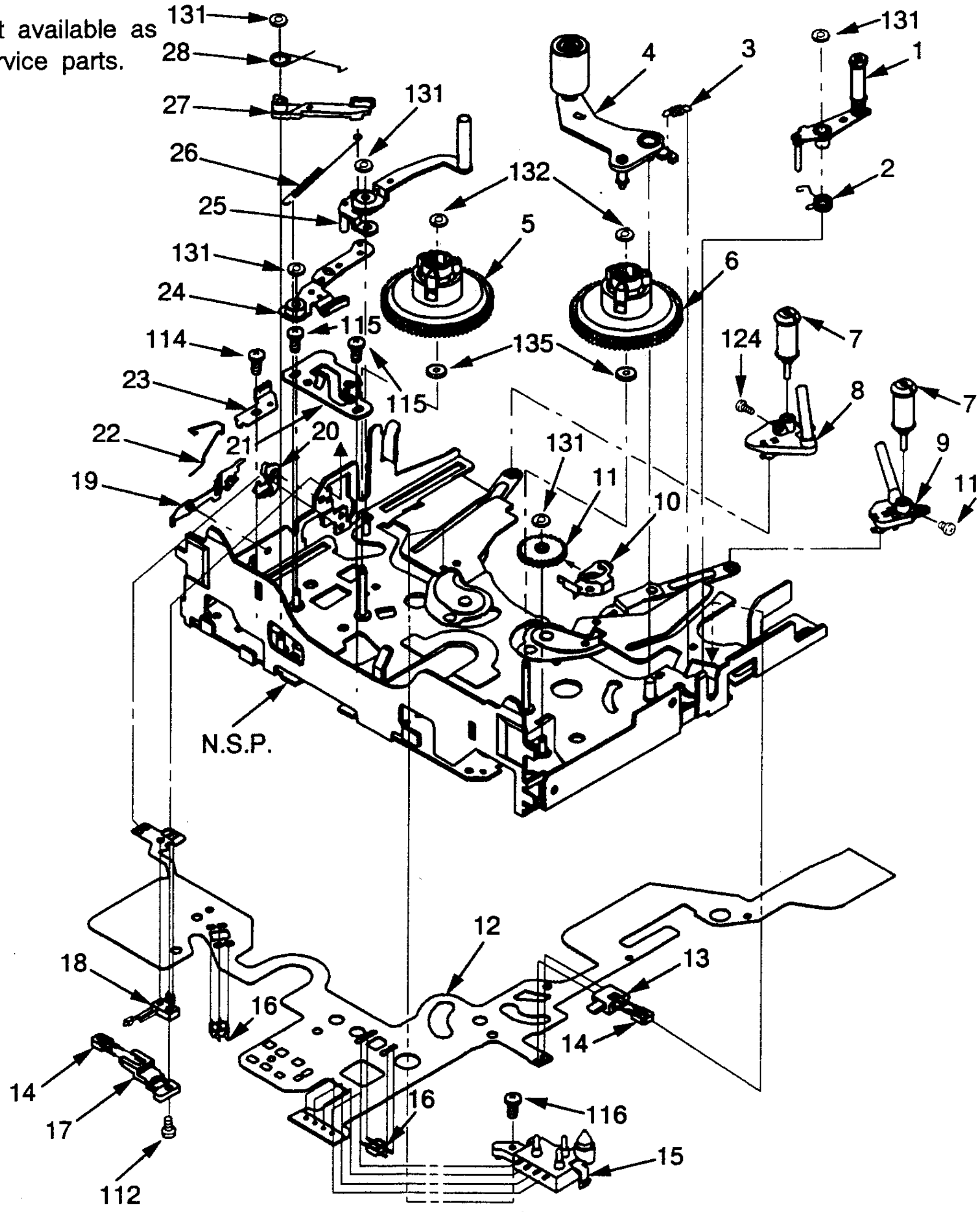
LOCATION	PARTS No.	DESCRIPTION
1	636 045 4927	ASSY, STOPPER
2	636 045 2589	HEAD DRUM
3	636 045 1599	SPACER, HEAD DRUM
4	636 041 5638	FLEXIBLE PWB, ROTARY SW
5	636 041 7472	SPRING, ARM
6	636 044 8896	STOPPER, ROTOR
7	645 000 3127	R-SPECIAL, DEW SENSOR
8	636 041 5386	ROLLER HEAD
9	636 041 6352	ASSY, ARM
10	636 041 8837	ROLLER, IMPEDANCE
113	411 164 2500	SCR PAN PCS 2X6.5
115	411 155 6005	SCR S-TPG PAN PCS 1.4X2.2
116	411 154 3906	SCR S-TPG PAN PCS 1.4X3
118	411 154 7300	SCR S-TPG PAN PCS 1.4X3.5
131	412 046 3202	SPECIAL WASHER 1.2X3X0.3
132	412 046 8207	SPECIAL WASHER 1.0X0.25



[MECHANISM 3]

LOCATION	PARTS No.	DESCRIPTION	LOCATION	PARTS No.	DESCRIPTION
1	636 044 9589	COMPL, LEVER DRAW	20	636 041 5225	LEVER, TRAY LOCK
2	636 041 7427	SPRING, BACK DRAW	21	636 045 2770	RAIL CAM
3	636 041 7342	SPRING, BACK PINCH	22	636 041 7410	SPRING, TRAY LOCK
4	636 045 9472	COMPL, PINCH ROLLER	23	636 043 3052	MOUNTING BRACKET
5	636 042 9444	ASSY, REEL PLATE	24	636 042 8645	ASSY, LEVER BRAKE, BT
6	636 042 9451	ASSY, REEL PLATE	25	636 043 0013	ASSY, LEVER, BT
7	636 043 7753	ASSY, ROLLER GUIDE	26	636 041 7359	SPRING, BT
8	636 044 1149	ASSY, MOUNTING S	27	636 042 8836	ASSY, LEVER SOFT
9	636 041 6512	ASSY, MOUNTING T	28	636 042 7037	SPRING, SOFT BRAKE
10	636 042 5958	LEVER, BRAKE	112	411 019 4802	SCR PAN PCS 1.4X3
11	636 041 5119	GEAR, BRAKE	114	411 155 5206	SCR S-TPG PAN PCS 1.4X1.6
12	636 045 3135	FLEXIBLE PWB, MECHANISM	115	411 155 6005	SCR S-TPG PAN PCS 1.4X2.2
13	636 041 0299	HOLDER SENSOR, RIGHT	116	411 154 3906	SCR S-TPG PAN PCS 1.4X3
14	407 145 3307	PHOTO DIODE, PT4850F	117	411 154 4101	SCR S-TPG PAN PCS 1.4X2
15	645 000 0041	SWITCH, RECOGNITION	124	412 049 3001	SPECIAL SCREW 1.4X3.5
16	408 017 5504	PHOTO COUPLE, NJL5163K-F10	131	412 046 3202	SPECIAL WASHER 1.2X3X0.3
17	636 041 0305	HOLDER SENSOR, LEFT	132	412 046 8207	SPECIAL WASHER 1.0X0.25
18	645 000 0058	SWITCH, LEAF	135	412 046 8306	SPECIAL WASHER 1.2X0.13
19	636 041 5218	LEVER, SWITCH			

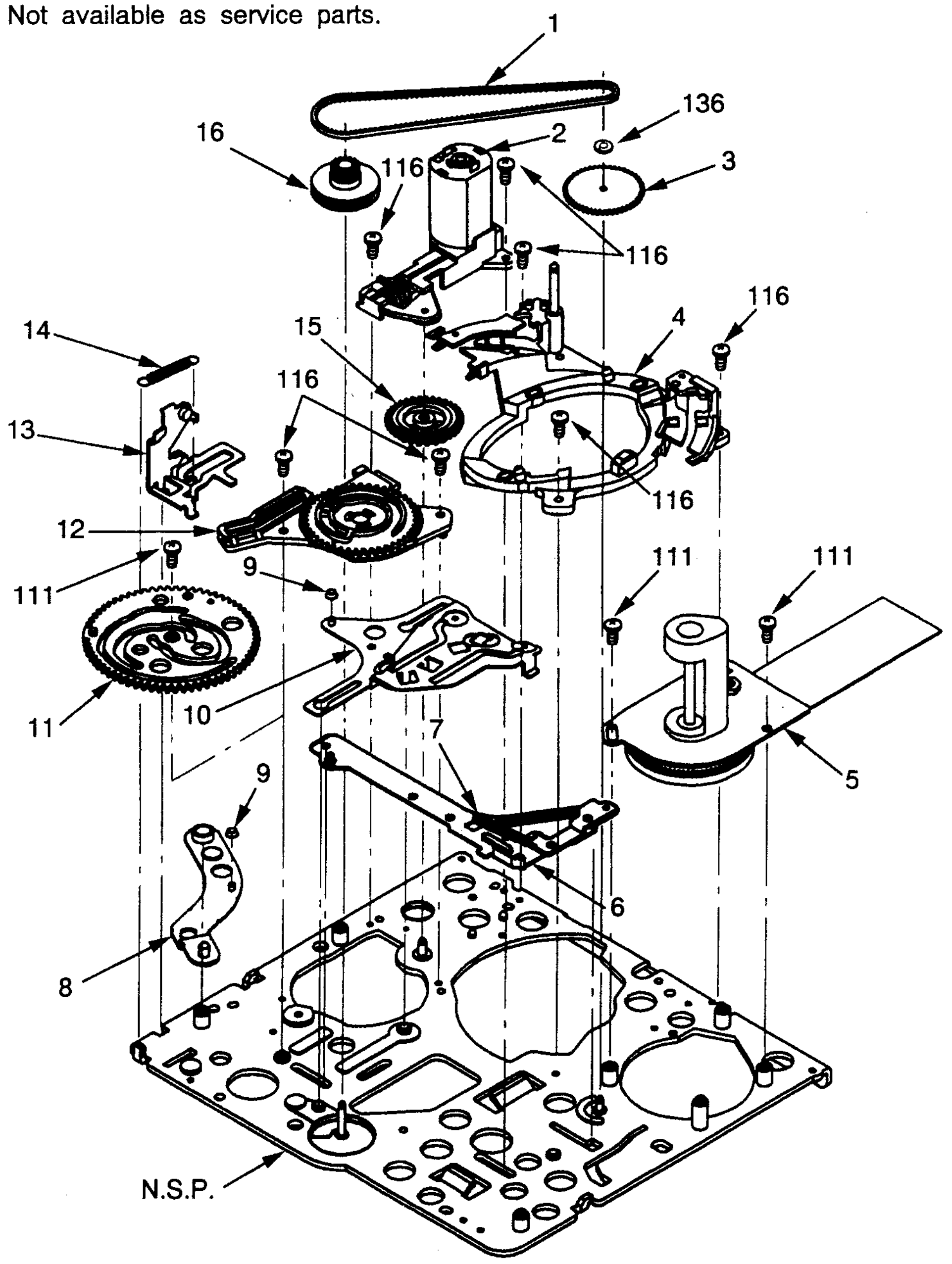
N.S.P. : Not available as service parts.



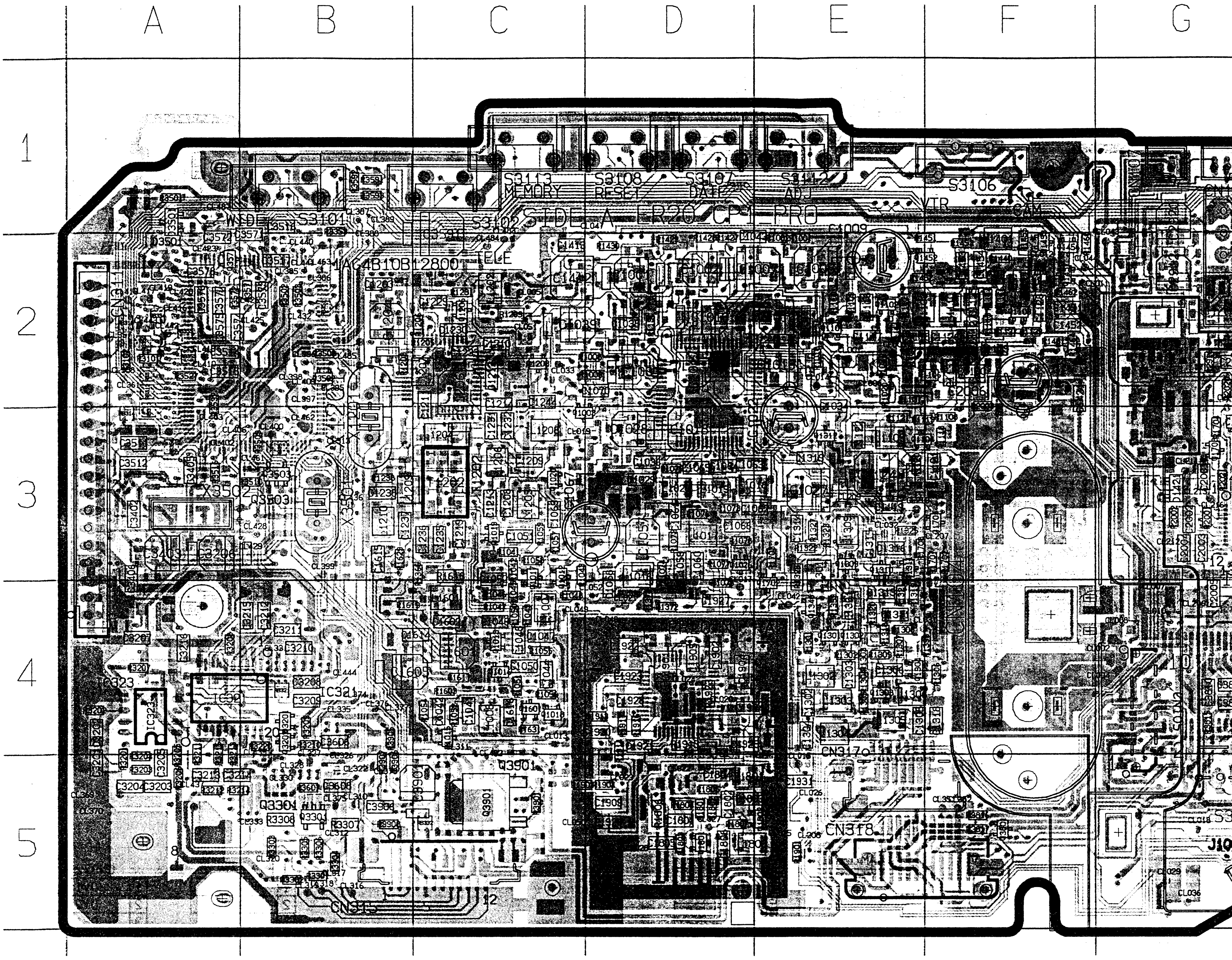
[MECHANISM 4]

LOCATION	PARTS No.	DESCRIPTION
1	636 042 6078	BELT, TIMING
2	636 042 0113	ASSY, MOTOR COMPL
3	636 041 5324	PULLEY, CAP
4	636 041 6383	ASSY, CHASSIS CYLINDER
5	645 002 7130	MOTOR, CAPSTAN DC 0.8W
6	636 044 0098	COMPL, SLIDE PINCH
7	636 044 0135	SPRING, PINCH PRESS
8	636 042 9574	ARM, SLIDE
9	636 041 7120	ROLLER
10	636 043 3700	COMPL, SLIDE LINK
11	636 043 7579	CAM GEAR
12	645 004 6841	SWITCH, ROTARY
13	636 041 5584	SLIDE EJECT
14	636 041 7373	SPRING, TENS EJECT
15	636 041 5089	GEAR, CHANGE
16	636 041 5331	PULLEY, IDLER
111	411 099 8509	SCR PAN PCS 1.4X2.5
116	411 154 3906	SCR S-TPG PAN PCS 1.4X3
136	412 046 3301	SPECIAL WASHER 0.9X3X0.3

N.S.P. : Not available as service parts.



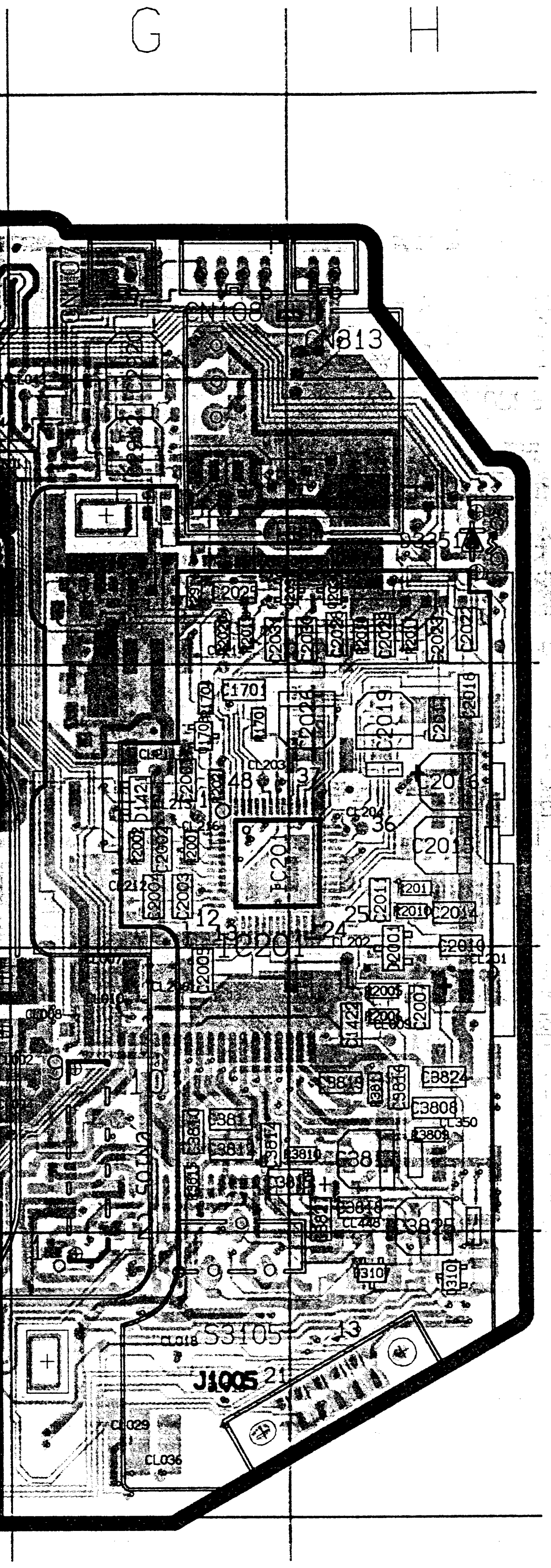
CP1 BOARD (SIDE A)



LEADLESS COMPONENT PARTS LOCATION GUIDE
CP1 BOARD (SIDE A)

C1001	ELECT	10U	M	16V	[D2]
C1002	ELECT	10U	M	16V	[D2]
C1008	ELECT	47U	M	4V	[E2]
C1010	ELECT	22U	M	6.3V	[D2]
C1016	ELECT	10U	M	16V	[E2]
C1017	ELECT	10U	M	16V	[D2]
C1027	ELECT	47U	M	4V	[E3]
C1028	ELECT	22U	M	6.3V	[D3]
C1034	CERAMIC	1U	Z	16V	[E3]
C1035	ELECT	22U	M	6.3V	[D2]
C1036	CERAMIC	1U	Z	16V	[D3]
C1038	CERAMIC	1U	Z	16V	[D2]
C1039	ELECT	10U	M	16V	[C2]
C1041	CERAMIC	0.01U	K	50V	[C4]
C1042	CERAMIC	33P	J	50V	[C4]
C1043	CERAMIC	1U	Z	16V	[D2]
C1044	CERAMIC	27P	J	50V	[C4]
C1047	CERAMIC	10P	D	50V	[C4]
C1048	CERAMIC	33P	J	50V	[C4]
C1049	CERAMIC	100P	J	50V	[C4]
C1051	CERAMIC	82P	J	50V	[C3]
C1057	ELECT	10U	M	16V	[D3]
C1060	CERAMIC	82P	J	50V	[D3]
C1061	CERAMIC	120P	J	50V	[D3]
C1062	CERAMIC	33P	J	50V	[E3]
C1064	CERAMIC	82P	J	50V	[D3]
C1065	CERAMIC	33P	J	50V	[D3]
C1066	CERAMIC	33P	J	50V	[D3]
C1070	CERAMIC	0.047U	K	25V	[D2]
C1116	CERAMIC	27P	J	50V	[E2]
C1117	CERAMIC	10P	D	50V	[E2]
C1118	CERAMIC	75P	J	50V	[E2]
C1119	CERAMIC	0.1U	Z	25V	[E3]
C1121	CERAMIC	82P	J	50V	[F3]
C1122	CERAMIC	18P	J	50V	[E3]
C1125	CERAMIC	39P	J	50V	[F2]
C1126	CERAMIC	56P	J	50V	[F2]
C1127	CERAMIC	47P	J	50V	[F2]
C1128	CERAMIC	39P	J	50V	[F2]
C1129	CERAMIC	10P	D	50V	[F2]
C1130	CERAMIC	75P	J	50V	[F2]
C1203	CERAMIC	2200P	K	50V	[B2]
C1204	ELECT	4.7U	M	25V	[B2]
C1208	CERAMIC	56P	J	50V	[C3]
C1209	CERAMIC	12P	J	50V	[C3]
C1210	CERAMIC	1U	Z	16V	[C2]
C1211	CERAMIC	0.1U	Z	25V	[C3]
C1212	CERAMIC	0.1U	Z	25V	[C2]
C1213	CERAMIC	10P	D	50V	[C3]
C1214	CERAMIC	0.1U	Z	25V	[C3]
C1219	CERAMIC	1000P	K	50V	[C3]
C1229	CERAMIC	0.01U	K	50V	[C2]
C1230	CERAMIC	56P	J	50V	[C2]
C1231	CERAMIC	39P	J	50V	[C3]
C1232	CERAMIC	12P	J	50V	[C3]
C1233	CERAMIC	1000P	K	50V	[C2]
C1235	CERAMIC	27P	J	50V	[C3]
C1236	CERAMIC	82P	J	50V	[C3]
C1237	CERAMIC	39P	J	50V	[B3]
C1238	CERAMIC	120P	J	50V	[B3]
C1244	CERAMIC	39P	J	50V	[C3]
C1302	CERAMIC	75P	J	50V	[E4]
C1303	CERAMIC	270P	J	50V	[E4]
C1304	CERAMIC	2200P	K	50V	[E4]
C1305	CERAMIC	36P	J	50V	[E4]
C1306	CERAMIC	270P	J	50V	[E4]
C1311	CERAMIC	5P	C	50V	[E4]
C1313	CERAMIC	1U	Z	16V	[E4]
C1314	CERAMIC	27P	J	50V	[E3]
C1315	CERAMIC	7P	C	50V	[E3]
C1413	CERAMIC	0.01U	K	50V	[C2]
C1421	CERAMIC	0.1U	Z	25V	[F3]
C1451	CERAMIC	1000P	K	50V	[F2]
C1453	CERAMIC	33P	J	50V	[F2]
C1602	CERAMIC	1U	Z	16V	[C4]
C1605	ELECT	4.7U	M	25V	[B4]
C1614	CERAMIC	1000P	K	50V	[C4]
C1615	CERAMIC	100P	J	50V	[B3]
C1701	CERAMIC	1000P	K	50V	[G3]
C1801	CERAMIC	100P	J	50V	[D5]
C1802	CERAMIC	150P	J	50V	[D5]
C1803	CERAMIC	150P	J	50V	[D5]
C1804	CERAMIC	0.01U	K	50V	[D5]
C1805	CERAMIC	0.1U	Z	25V	[D5]
C1904	TA-SOLID	6.8U	M	6.3V	[D4]
C1905	CERAMIC	0.1U	Z	25V	[D4]
C1923	CERAMIC	0.1U	Z	25V	[D4]
C1925	TA-SOLID	6.8U	M	6.3V	[D4]
C1927	CERAMIC	1000P	K	50V	[D4]
C1928	CERAMIC	0.1U	Z	25V	[D4]
C1931	CERAMIC	100P	J	50V	[E5]
C2001	CERAMIC	0.01U	K	50V	[G3]
C2002	CERAMIC	56P	J	50V	[G3]
C2003	CERAMIC	0.01U	K	50V	[G3]
C2005	CERAMIC	1U	Z	16V	[G4]
C2007	CERAMIC	1U	Z	16V	[H4]
C2010	CERAMIC	1U	Z	16V	[H4]
C2011	CERAMIC	2200P	K	50V	[H3]
C2014	CERAMIC	1U	Z	16V	[H3]
C2015	ELECT	10U	M	16V	[H3]
C2016	ELECT	1U	M	50V	[H3]
C2017	CERAMIC	1U	Z	16V	[H3]
C2018	CERAMIC	220P	J	50V	[H3]
C2019	ELECT	4.7U	M	25V	[H3]
C2022	CERAMIC	0.027U	K	25V	[H2]
C2023	CERAMIC	1U	Z	16V	[H2]
C2025	CERAMIC	1U	Z	16V	[G2]
C2026	ELECT	4.7U	M	25V	[H3]
C2028	CERAMIC	0.047U	K	25V	[H2]
C2029	CERAMIC	0.047U	K	25V	[H2]
C2030	CERAMIC	0.01U	K	50V	[H2]
C2031	CERAMIC	0.01U	K	50V	[G2]
C2912	ELECT	10U	M	16V	[G2]
C2920	ELECT	22U	M	6.3V	[G1]
C3201	CERAMIC	1000P	K	50V	[A5]
C3202	CERAMIC	1U	Z	16V	[A4]
C3203	CERAMIC	2200P	K	50V	[A5]
C3204	CERAMIC	1U	Z	16V	[A5]
C3206	ELECT	22U	M	6.3V	[A3]
C3207	CERAMIC	0.1U	Z	25V	[A4]
C3208	CERAMIC	47P	J	50V	[B4]
C3209	CERAMIC	47P	J	50V	[B4]
C3211	CERAMIC	100P	J	50V	[B4]
C3213	CERAMIC	82P	J	50V	[A5]
C3214	CERAMIC	180P	J	50V	[A5]
C3215	CERAMIC	22P	J	50V	[B4]
C3216	CERAMIC	0.1U	Z	25V	[A4]
C3402	CERAMIC	0.1U	Z	25V	[A3]
C3403	ELECT	22U	M	6.3V	[A3]
C3405	CERAMIC	0.1U	Z	25V	[A3]
C3406	CERAMIC	0.1U	Z	25V	[A4]
C3511	CERAMIC	150P	J	50V	[A3]
C3512	CERAMIC	150P	J	50V	[A3]
C3514	CERAMIC	47P	J	50V	[A2]
C3515	CERAMIC	47P	J	50V	[A2]
C3516	CERAMIC	470P	J	50V	[B2]
C3517	CERAMIC	470P	J	50V	[B2]
C3571	CERAMIC	0.1U	Z	25V	[B2]
C3572	CERAMIC	0.1U	Z	25V	[A2]
C3573	CERAMIC	0.1U	Z	25V	[B2]
C3576	CERAMIC	0.1U	Z	25V	[A2]
C3577	CERAMIC	0.1U	Z	25V	[A2]
C3578	CERAMIC	0.1U	Z	25V	[A2]
C3591	ELECT	47U	M	4V	[C2]
C3606	CERAMIC	0.1U	Z	25V	[B4]
C3608	CERAMIC	0.1U	Z	25V	[B5]
C3808	CERAMIC	1U	Z	16V	[H4]
C3810	CERAMIC	0.033U	K	25V	[G4]
C3811	CERAMIC	0.033U	K	25V	[G4]
C3812	CERAMIC	0.033U	K	25V	[G4]
C3814	CERAMIC	0.068U	Z	25V	[G4]
C3815	TA-SOLID	1U	M	16V	[H4]
C3816	CERAMIC	1U	Z	16V	[H4]
C3817	ELECT	22U	M	6.3V	[H4]
C3818	CERAMIC	0.1U	Z	25V	[H4]
C3824	CERAMIC	0.1U	Z	25V	[H4]
C3825	ELECT	10U	M	16V	[H5]
C3901	ELECT	22U	M	6.3V	[C5]
C3906	CERAMIC	0.01U	K	50V	[B5]
D3101	DIODE MA141WK-TX				[H5]
D3107	DIODE MA141WK-TX				[H5]
D3501	ZENER DIODE MA3082WA-TX				[A1]
IC201	IC LA7454W-P-TRM				[G3]
IC321	IC XLU6000FS-E1				[A4]
IC323	IC BA7046F-T1				[A4]
L1007	HF CHOKE				[C4]
L1008	HF CHOKE				[C4]
L1017	COIL,INDUCTOR	22U	J		[D3]
L1018	HF CHOKE				[D3]
L1020	HF CHOKE				[D3]
L1105	HF CHOKE				[E3]
L1109	COIL,INDUCTOR	4.7U	J		[E2]
L1110	COIL,INDUCTOR	4.7U	J		[F2]
L1111	HF CHOKE				[F2]
L1204	COIL,INDUCTOR	150U	J		[C3]
L1205	HF CHOKE				[C3]
L1206	COIL,INDUCTOR	100U	J		[C3]
L1207	COIL,INDUCTOR	12U	J		[C2]
L1208	COIL,INDUCTOR	15U	J		[C3]
L1209	HF CHOKE				[B3]
L1210	HF CHOKE				[B3]
L1302	COIL,INDUCTOR	4.7U	J		[E4]
L1303	COIL,INDUCTOR	33U	J		[E4]
L1304	COIL,INDUCTOR	470U	J		[E4]
L1305	COIL,INDUCTOR	330UH	J		[E4]
L1306	HF CHOKE				[E4]
L1309	HF CHOKE				[E3]
L1801	HF CHOKE				[D5]
L1901	RF CHOKE				[D4]
Q1003	TR 2SC4211-6-TL				[C3]
Q1012	TR 2SC4211-6-TL				[C4]
Q1013	TR 2SB1218A-R-TX				[C4]
Q1015	TR 2SC4211-6-TL				[C4]
Q1017	TR 2SC4211-6-TL				[C4]
Q1018	TR 2SC4211-6-TL				[C4]
Q1019	TR DTC144EU-T106				[C3]
Q1026	TR 2SC4211-6-TL				[D3]
Q1101	TR 2SC4211-6-TL				[E2]
Q1102	TR 2SC4211-6-TL				[E2]
Q1103	TR 2SC4211-6-TL				[F2]
Q1104	TR 2SC4211-6-TL				[E3]
Q1106	TR 2SC4211-6-TL				[F2]
Q1203	TR DTC144EU-T106				[C2]
Q1206	TR DTC144EU-T106				[C2]
Q1301	TR 2SB1218A-R-TX				[E4]
Q1302	TR 2SB1218A-R-TX				[E4]
Q1303	TR 2SC4211-6-TL				[E4]
Q1304	TR 2SB1218A-R-TX				[E4]
Q1309	TR 2SC4211-6-TL				[E3]
Q1310	TR DTC144EU-T106				[E3]
Q1453	TR 2SC4211-6-TL				[F2]
Q1456	TR 2SB1218A-R-TX				[F2]
Q1457	TR 2SB1218A-R-TX				
Q1601	TR 2SC4211-6-TL				
Q1701	TR DTC144EU-T106				
Q1702	TR DTC144EU-T106				
Q1801	TR 2SB1218A-R-TX				
Q1802	TR 2SB1218A-R-TX				
Q2030	TR DTC144EU-T106				
Q2031	TR DTA144EU-T106				
Q3201	TR DTC144EU-T106				
Q3202	TR 2SC4211-6-TL				
Q3301	TR XN1211-TW				
Q3502	TR DTC144EU-T106				
Q3503	TR XN1213-TW				
Q3571	TR 2SC4211-6-TL				
Q3801	TR 2SC4211-6-TL				
Q3901	TR 2SB1202-S-TL				
R1001	MT-GLAZE	1K	J		
R1002	MT-GLAZE	1K	J		
R1008	MT-GLAZE	39K	J		
R1009	MT-GLAZE	56K	J		
R1020	MT-FILM	13K	D		
R1021	MT-FILM	18K	D		
R1041	MT-GLAZE	2.2K	J		
R1042	MT-FILM	1.2K	D		
R1043	MT-FILM	2.4K	D		
R1045	MT-FILM	2.2K	D		
R1046	MT-GLAZE	47	J		
R1047	MT-GLAZE	1K	J		
R1048	MT-GLAZE	680	J		
R1049	MT-FILM	2.7K	D		
R1050	MT-GLAZE	1K	J		
R1051	MT-GLAZE	1.2K	J		
R1052	MT-GLAZE	1.2K	J		
R1054	MT-GLAZE	1K	J		
R1055	MT-GLAZE	10K	J		
R1056	MT-GLAZE	100	J		
R1057	MT-FILM	2.4K	D		
R1058	MT-GLAZE	47	J		
R1059	MT-GLAZE	10K	J		
R1073	MT-GLAZE	0.000	Z		
R1074	MT-GLAZE	220	J		
R1075	MT-GLAZE	560	J		
R1076	MT-GLAZE	2.2K	J		
R1077	MT-GLAZE	1.5K	J		
R1078	MT-GLAZE	1K	J		
R1079	MT-GLAZE	1K	J		
R1107	MT-GLAZE	0.000	Z		
R1109	MT-GLAZE	1.2K	J		
R1110	MT-GLAZE	1.5K	J		
R1111	MT-GLAZE	1.8K	J		
R1112	MT-GLAZE	39	J		
R1114	MT-GLAZE	560	J		
R1115	MT-GLAZE	4.7K	J		
R1116	MT-GLAZE	820	J		

VF1 BOARD (SIDE A)



CN313

1	LI B
2	LI GND

LITHIUM BATTERY

CN105

1	CAMERA CS
2	CAMERA CS
3	CAMERA SCK
4	CAMERA SO
5	NOT USED
6	CAMERA C
7	C GND
8	CAMERA Y
9	Y GND
10	Y GND

TO CA1

CN104

1	AUDIO GND
2	AUDIO OUT
3	VIDEO GND
4	VIDEO OUT
5	+B
6	GND

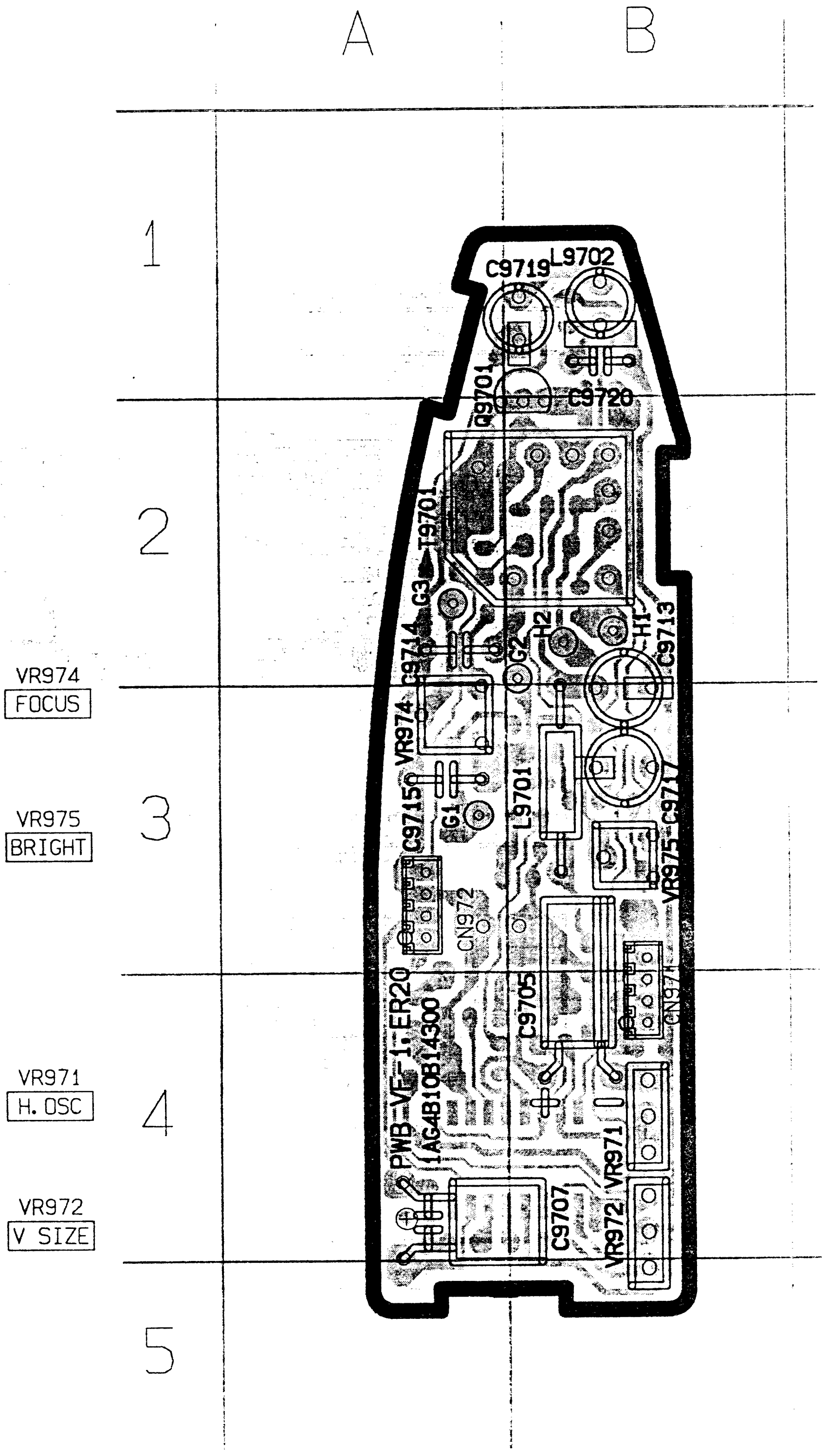
J1005

12	GND
13	S/S 5V
14	TEST
15	NOT USED
16	NOT USED
17	NOT USED
18	NOT USED
19	NOT USED
20	NOT USED
21	AUDIO IN
22	NOT USED

CN315

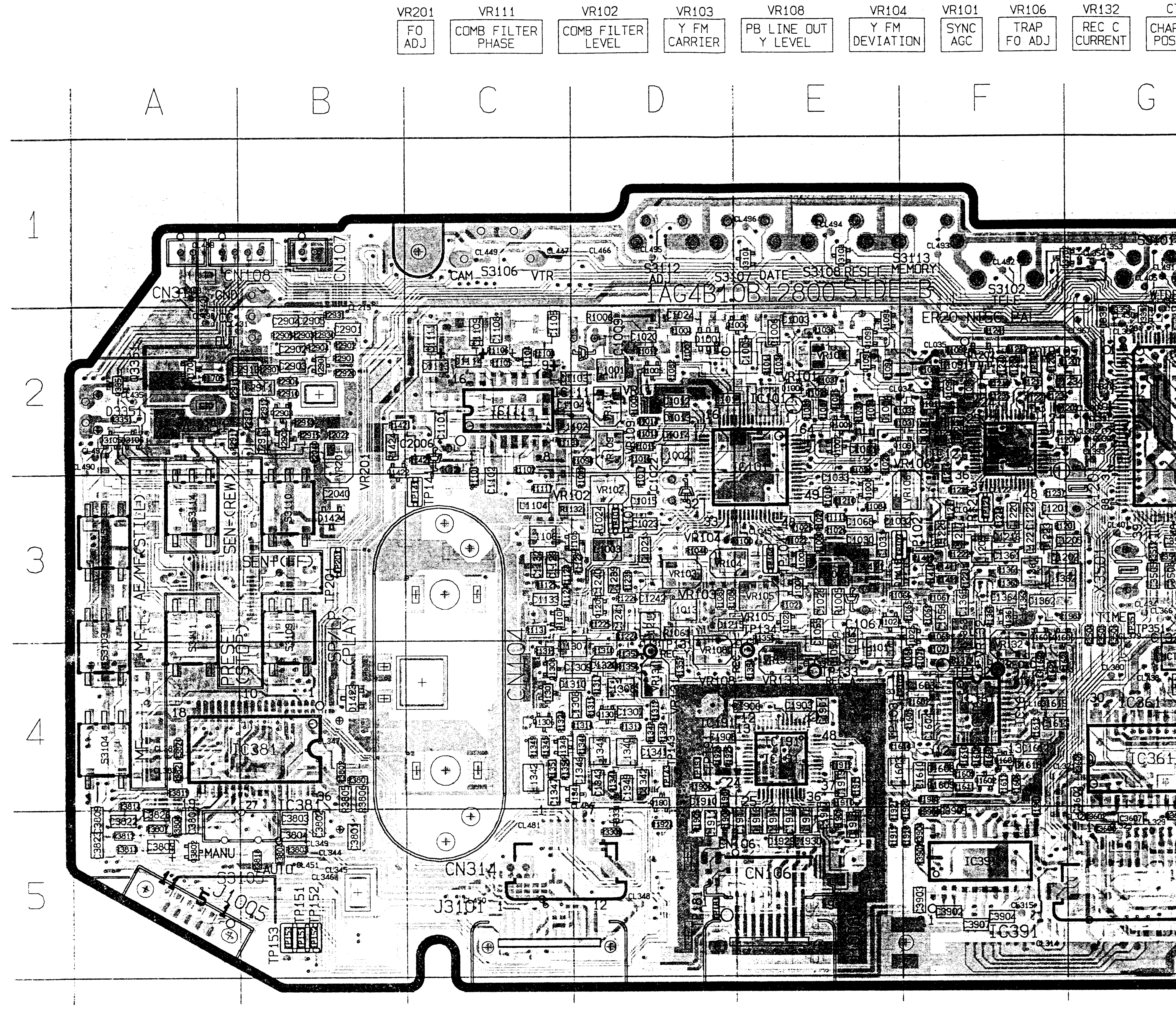
1	CASS IN SW
2	MP 5V
3	REEL LED
4	REC PROOF
5	GND
6	MP/ME
7	HI-8
8	T REEL
9	TAPE END
10	S REEL
11	TAPE LED
12	TAPE TOP

TO MECHA



1457	TR	2SB1218A-R-TX			[F2]
1601	TR	2SC4211-6-TL			[C4]
1701	TR	DTC144EU-T106			[F3]
1702	TR	DTC144EU-T106			[E4]
1801	TR	2SB1218A-R-TX			[D5]
1802	TR	2SB1218A-R-TX			[E5]
2030	TR	DTC144EU-T106			[H2]
2031	TR	DTA144EU-T106			[H2]
3201	TR	DTC144EU-T106			[B4]
3202	TR	2SC4211-6-TL			[B4]
3301	TR	XN1211-TW			[B5]
3502	TR	DTC144EU-T106			[B2]
3503	TR	XN1213-TW			[B3]
3571	TR	2SC4211-6-TL			[A2]
3801	TR	2SC4211-6-TL			[F5]
3901	TR	2SB1202-S-TL			[C5]
1001	MT-GLAZE	1K	JA	1/16W	[E2]
1002	MT-GLAZE	1K	JA	1/16W	[E2]
1008	MT-GLAZE	39K	JA	1/16W	[D2]
1009	MT-GLAZE	56K	JA	1/16W	[D2]
1020	MT-FILM	13K	DU	1/16W	[E2]
1021	MT-FILM	18K	DU	1/16W	[E2]
1041	MT-GLAZE	2.2K	JA	1/16W	[C3]
1042	MT-FILM	1.2K	DU	1/16W	[C3]
1043	MT-FILM	2.4K	DU	1/16W	[C4]
1045	MT-FILM	2.2K	DU	1/16W	[C4]
1046	MT-GLAZE	47	JA	1/16W	[C4]
1047	MT-GLAZE	1K	JA	1/16W	[C4]
1048	MT-GLAZE	680	JA	1/16W	[C4]
1049	MT-FILM	2.7K	DU	1/16W	[C4]
1050	MT-GLAZE	1K	JA	1/16W	[C4]
1051	MT-GLAZE	1.2K	JA	1/16W	[C4]
1052	MT-GLAZE	1.2K	JA	1/16W	[C4]
1054	MT-GLAZE	1K	JA	1/16W	[C4]
1055	MT-GLAZE	10K	JA	1/16W	[C4]
1056	MT-GLAZE	100	JA	1/16W	[C4]
1057	MT-FILM	2.4K	DU	1/16W	[C3]
1058	MT-GLAZE	47	JA	1/16W	[C3]
1059	MT-GLAZE	10K	JA	1/16W	[C3]
1073	MT-GLAZE	0.000	ZA	1/16W	[D3]
1074	MT-GLAZE	220	JA	1/16W	[D4]
1075	MT-GLAZE	560	JA	1/16W	[D4]
1076	MT-GLAZE	2.2K	JA	1/16W	[D3]
1077	MT-GLAZE	1.5K	JA	1/16W	[D3]
1078	MT-GLAZE	1K	JA	1/16W	[D3]
1079	MT-GLAZE	1K	JA	1/16W	[D3]
1107	MT-GLAZE	0.000	ZA	1/16W	[E3]
1109	MT-GLAZE	1.2K	JA	1/16W	[E2]
1110	MT-GLAZE	1.5K	JA	1/16W	[E2]
1111	MT-GLAZE	1.8K	JA	1/16W	[E2]
1112	MT-GLAZE	39	JA	1/16W	[E2]
1114	MT-GLAZE	560	JA	1/16W	[F2]
1115	MT-GLAZE	4.7K	JA	1/16W	[F2]
1116	MT-GLAZE	820	JA	1/16W	[F2]
R1118	MT-GLAZE	560	JA	1/16W	[F3]
R1119	MT-GLAZE	680	JA	1/16W	[E3]
R1120	MT-GLAZE	820	JA	1/16W	[E3]
R1121	MT-GLAZE	2.4K	JA	1/16W	[E3]
R1126	MT-GLAZE	1K	JA	1/16W	[E2]
R1127	MT-GLAZE	1K	JA	1/16W	[F2]
R1129	MT-GLAZE	1K	JA	1/16W	[F2]
R1130	MT-GLAZE	100K	JA	1/16W	[D2]
R1205	MT-GLAZE	150K	JA	1/16W	[C2]
R1206	MT-GLAZE	27K	JA	1/16W	[C2]
R1209	MT-GLAZE	2.2	JA	1/10W	[C2]
R1238	MT-GLAZE	10K	JA	1/16W	[B3]
R1301	MT-GLAZE	470	JA	1/16W	[E4]
R1303	MT-GLAZE	1.5K	JA	1/16W	[E4]
R1304	MT-GLAZE	560	JA	1/16W	[E4]
R1305	MT-GLAZE	330	JA	1/16W	[E4]
R1307	MT-GLAZE	470	JA	1/16W	[E4]
R1308	MT-GLAZE	470	JA	1/16W	[E4]
R1309	MT-GLAZE	2.2K	JA	1/16W	[E4]
R1318	MT-GLAZE	1.5K	JA	1/16W	[E4]
R1320	MT-GLAZE	1.2K	JA	1/16W	[E4]
R1321	MT-GLAZE	8.2K	JA	1/16W	[E4]
R1322	MT-GLAZE	1.2K	JA	1/16W	[E3]
R1323	MT-GLAZE	180	JA	1/16W	[E3]
R1328	MT-GLAZE	5.6	JA	1/10W	[E4]
R1372	MT-FILM	3.9K	DU	1/16W	[D4]
R1373	MT-FILM	390	DU	1/16W	[D4]
R1427	MT-GLAZE	910	JA	1/16W	[D2]
R1428	MT-GLAZE	1.2K	JA	1/16W	[D2]
R1429	MT-GLAZE	1.2K	JA	1/16W	[D2]
R1430	MT-GLAZE	1.2K	JA	1/16W	[D2]
R1451	MT-GLAZE	1.8K	JA	1/16W	[F2]
R1452	MT-GLAZE	2K	JA	1/16W	[E2]
R1455	MT-GLAZE	560	JA	1/16W	[F2]
R1460	MT-GLAZE	2.7K	JA	1/16W	[F2]
R1461	MT-GLAZE	10K	JA	1/16W	[F2]
R1462	MT-GLAZE	10K	JA	1/16W	[F2]
R1464	MT-GLAZE	560	JA	1/16W	[F2]
R1603	MT-GLAZE	8.2K	JA	1/16W	[C4]
R1617	MT-GLAZE	330K	JA	1/16W	[C4]
R1618	MT-GLAZE	2.2	JA	1/10W	[C4]
R1619	MT-GLAZE	180K	JA	1/16W	[B4]
R1629	MT-GLAZE	150	JA	1/16W	[B3]
R1631	MT-GLAZE	10K	JA	1/16W	[C4]
R1702	MT-GLAZE	10K	JA	1/16W	[F3]
R1703	MT-GLAZE	10K	JA	1/16W	[E3]
R1704	MT-GLAZE	10K	JA	1/16W	[G3]
R1707	MT-GLAZE	10K	JA	1/16W	[F3]
R1801	MT-GLAZE	10	JA	1/16W	[D5]
R1802	MT-GLAZE	270	JA	1/16W	[D5]
R1803	MT-GLAZE	220	JA	1/16W	[D5]
R1804	MT-GLAZE	22K	JA	1/16W	[D5]
R1805	MT-GLAZE	33K	JA	1/16W	[D5]
R1806	MT-GLAZE	5.6	JA	1/10W	[D5]
R1901	MT-GLAZE	3.3K	JA	1/16W	[E5]
R1903	MT-GLAZE	36K	JA	1/16W	[C5]
R1904	MT-GLAZE	12K	JA	1/16W	[D5]
R1913	MT-GLAZE	36K	JA	1/16W	[D4]
R1914	MT-GLAZE	12K	JA	1/16W	[D5]
R1915	MT-GLAZE	3.3	JA	1/10W	[D4]
R1917	MT-GLAZE	12K	JA	1/16W	[D4]
R1923	MT-GLAZE	3.3	JA	1/10W	[D4]
R2001	MT-GLAZE	6.8K	JA	1/16W	[G3]
R2003	MT-GLAZE	22	JA	1/16W	[F3]
R2005	MT-GLAZE	1.8K	JA	1/16W	[H4]
R2006	MT-GLAZE	100K	JA	1/16W	[H4]
R2010	MT-GLAZE	33K	JA	1/16W	[H3]
R2011	MT-GLAZE	10K	JA	1/16W	[H3]
R2017	MT-FILM	22K	DU	1/16W	[H2]
R2018	MT-GLAZE	3.3M	JA	1/16W	[H2]
R2019	MT-FILM	7.5K	DU	1/16W	[G2]
R2020	MT-FILM	10K	DU	1/16W	[G2]
R2021	MT-GLAZE	5.6K	JA	1/16W	[G3]
R2916	MT-GLAZE	1K	JA	1/16W	[G2]
R3101	MT-GLAZE	3.3K	JA	1/16W	[A2]
R3102	MT-GLAZE	100K	JA	1/16W	[A2]
R3201	MT-GLAZE	330	JA	1/16W	[A5]
R3202	MT-GLAZE	470K	JA	1/16W	[A4]
R3203	MT-GLAZE	39K	JA	1/16W	[A5]
R3204	MT-GLAZE	470K	JA	1/16W	[A5]
R3205	MT-GLAZE	120K	JA	1/16W	[A5]
R3206	MT-GLAZE	10K	JA	1/16W	[A5]
R3207	MT-GLAZE	33	JA	1/16W	[A4]
R3208	MT-GLAZE	1.8K	JA	1/16W	[A4]
R3209	MT-GLAZE	47K	JA	1/16W	[B4]
R3210	MT-GLAZE	47K	JA	1/16W	[B4]
R3211	MT-GLAZE	330	JA	1/16W	[A5]
R3212	MT-GLAZE	24K	JA	1/16W	[A5]
R3213	MT-GLAZE	330	JA	1/16W	[A5]
R3214	MT-GLAZE	1.5K	JA	1/16W	[A5]
R3215	MT-GLAZE	3.3K	JA	1/16W	[A5]
R3220	MT-GLAZE	47K	JA	1/16W	[B5]
R3301	MT-GLAZE	10K	JA	1/16W	[B5]
R3302	MT-GLAZE	10K	JA	1/16W	[B5]
R3303	MT-GLAZE	47K	JA	1/16W	[B5]
R3304	MT-GLAZE	56K	JA	1/16W	[B5]
R3305	MT-GLAZE	47K	JA	1/16W	[B5]
R3306	MT-GLAZE	47K	JA	1/16W	[B5]
R3307	MT-GLAZE	220	JA	1/10W	[B5]
R3308	MT-GLAZE	100	JA	1/10W	[B5]
R3501	MT-GLAZE	0.000	ZA	1/16W	[A1]
R3502	MT-GLAZE	1K	JA	1/16W	[B2]
R3503	MT-GLAZE	1K	JA	1/16W	[B2]
R3508	MT-GLAZE	100K	JA	1/16W	[B2]
R3509	MT-GLAZE	10K	JA	1/16W	[B3]
R3516	MT-GLAZE	1K	JA	1/16W	[A3]
R3527	MT-GLAZE	470	JA	1/16W	[A2]
R3532	MT-GLAZE	100K	JA	1/16W	[A3]
R3571	MT-GLAZE	1K	JA	1/16W	[B2]
R3572	MT-GLAZE	1K	JA	1/16W	[A2]
R3591	MT-GLAZE	220	JA	1/16W	[B1]
R3592	MT-GLAZE	56	JA	1/16W	[B1]
R3593	MT-GLAZE	56	JA	1/16W	[B1]
R3607	MT-GLAZE	1K	JA	1/16W	[B5]
R3809	MT-GLAZE	2.2K	JA	1/16W	[H4]
R3810	MT-GLAZE	33K	JA	1/16W	[H4]
R3811	MT-GLAZE	1M	JA	1/16W	[H4]
R3815	MT-GLAZE	470	JA	1/16W	[G4]
R3816	MT-GLAZE	47	JA	1/16W	[F5]
R3817	MT-GLAZE	47	JA	1/16W	[F5]
R3901	MT-GLAZE	1K	JA	1/16W	[C5]
R3905	MT-GLAZE	560	JA	1/16W	[B4]
R3906	MT-FILM	10K	DU	1/16W	[B5]
R3907	MT-FILM	10K	DU	1/16W	[B5]
R3908	MT-GLAZE	100K	JA	1/16W	[B5]
RB311	R-NETWORK	100KX2		0.063W	[A2]
RB312	R-NETWORK	100KX2		0.063W	[A2]
RB313	R-NETWORK	100KX2		0.063W	[A3]
RB314	R-NETWORK	100KX2		0.063W	[A3]
RB316	R-NETWORK	100KX2		0.063W	[A2]
RB321	R-NETWORK	10KX2		0.063W	[B4]
RB332	R-NETWORK	10KX2		0.063W	[C5]
RB351	R-NETWORK	100KX2		0.063W	[B2]
RB352	R-NETWORK	100KX2		0.063W	[A2]
RB353	R-NETWORK	100KX2		0.063W	[A2]
RB354	R-NETWORK	100KX2		0.063W	[A2]
RB355	R-NETWORK	100KX2		0.063W	[A2]
RB356	R-NETWORK	10KX2		0.063W	[A3]
RB357	R-NETWORK	100KX2		0.063W	[B3]
T1202	FILTER				[C3]

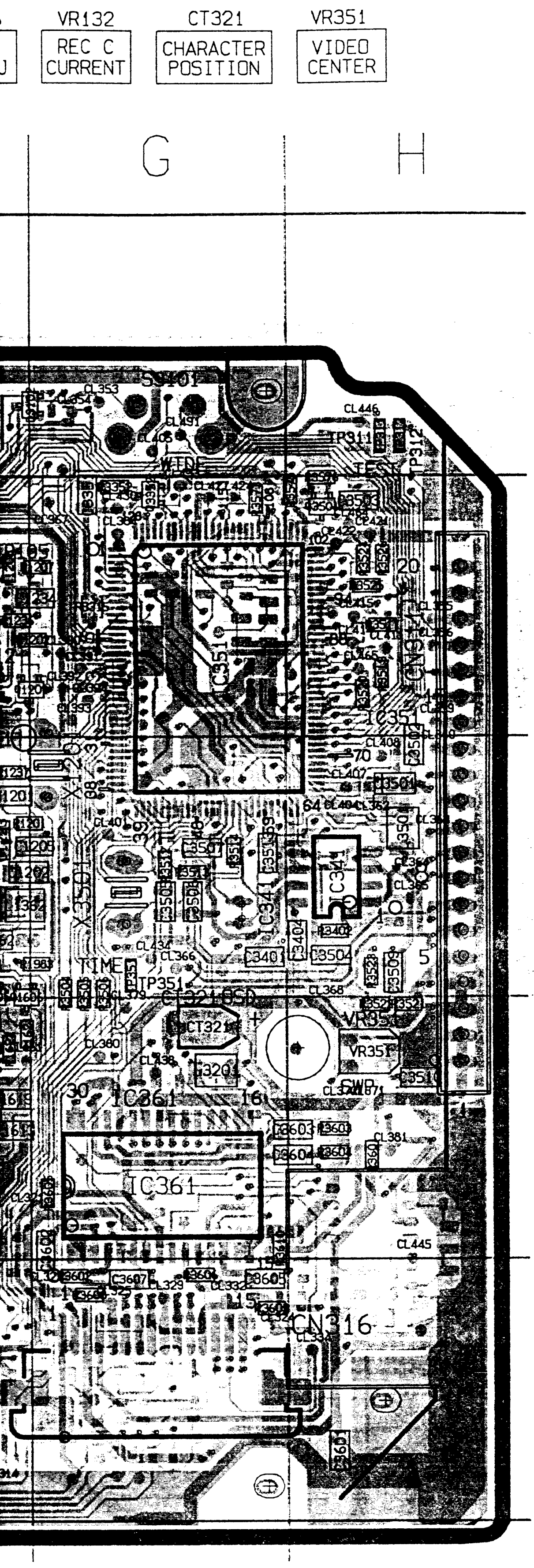
CP1 BOARD (SIDE B)



LEADLESS COMPONENT PARTS LOCATION GUIDE
CP1 BOARD (SIDE B)

C1005	CERAMIC	1000P	K	50V	[E2]
C1020	CERAMIC	470P	J	50V	[D2]
C1021	CERAMIC	1000P	K	50V	[D3]
C1026	CERAMIC	220P	J	50V	[E3]
C1030	CERAMIC	330P	J	50V	[E3]
C1031	CERAMIC	390P	J	50V	[E3]
C1032	CERAMIC	0.47U	Z	16V	[E3]
C1033	CERAMIC	22P	J	50V	[E3]
C1037	CERAMIC	1000P	K	50V	[F2]
C1053	CERAMIC	10P	D	50V	[E4]
C1054	CERAMIC	47P	J	50V	[E4]
C1055	CERAMIC	47P	J	50V	[E3]
C1056	CERAMIC	150P	J	50V	[F3]
C1071	CERAMIC	22P	J	50V	[E2]
C1091	CERAMIC	330P	J	50V	[F2]
C1101	CERAMIC	1U	Z	16V	[C2]
C1102	CERAMIC	1000P	K	50V	[C3]
C1105	CERAMIC	1000P	K	50V	[C2]
C1108	CERAMIC	0.1U	Z	25V	[C2]
C1113	CERAMIC	0.1U	Z	25V	[C2]
C1114	CERAMIC	0.1U	Z	25V	[C2]
C1123	CERAMIC	27P	J	50V	[C3]
C1132	CERAMIC	100P	J	50V	[C3]
C1133	CERAMIC	27P	J	50V	[C3]
C1201	CERAMIC	0.01U	K	50V	[F3]
C1205	CERAMIC	1U	Z	16V	[G3]
C1207	CERAMIC	1000P	K	50V	[F2]
C1217	CERAMIC	10P	D	50V	[F3]
C1220	CERAMIC	0.01U	K	50V	[F3]
C1221	CERAMIC	1000P	K	50V	[F3]
C1222	CERAMIC	0.01U	K	50V	[F3]
C1223	CERAMIC	100P	J	50V	[F3]
C1228	CERAMIC	1000P	K	50V	[F3]
C1234	CERAMIC	0.1U	Z	25V	[G2]
C1239	CERAMIC	56P	J	50V	[D3]
C1241	CERAMIC	180P	J	50V	[D3]
C1242	CERAMIC	33P	J	50V	[D3]
C1307	CERAMIC	0.01U	K	50V	[D4]
C1308	CERAMIC	2200P	K	50V	[D4]
C1309	CERAMIC	22P	J	50V	[D4]
C1310	CERAMIC	0.01U	K	50V	[C4]
C1341	CERAMIC	75P	J	50V	[D4]
C1342	CERAMIC	330P	J	50V	[D4]
C1343	CERAMIC	180P	J	50V	[D4]
C1346	CERAMIC	15P	J	50V	[D4]
C1347	CERAMIC	39P	J	50V	[C4]
C1361	CERAMIC	3300P	K	50V	[F3]
C1362	CERAMIC	75P	J	50V	[F3]
C1364	CERAMIC	47P	J	50V	[F3]
C1365	CERAMIC	0.1U	Z	25V	[F3]
C1603	CERAMIC	110P	J	50V	[F4]
C1604	CERAMIC	1000P	K	50V	[F4]
C1608	CERAMIC	56P	J	50V	[F4]
C1609	CERAMIC	47P	J	50V	[F4]
C1610	CERAMIC	12P	J	50V	[F4]
C1613	CERAMIC	1000P	K	50V	[F4]
C1618	CERAMIC	1U	Z	16V	[F4]
C1901	CERAMIC	1000P	K	50V	[E4]
C1903	CERAMIC	1000P	K	50V	[E4]
C1906	CERAMIC	1000P	K	50V	[E4]
C1908	CERAMIC	1000P	K	50V	[D4]
C1910	CERAMIC	0.01U	K	50V	[D4]
C1911	CERAMIC	1000P	K	50V	[D5]
C1912	CERAMIC	0.1U	Z	25V	[E5]
C1913	CERAMIC	0.1U	Z	25V	[E5]
C1914	CERAMIC	0.1U	Z	25V	[E5]
C1915	CERAMIC	0.1U	Z	25V	[E5]
C1916	CERAMIC	0.1U	Z	25V	[E5]
C1917	CERAMIC	0.1U	Z	25V	[E5]
C1918	CERAMIC	1000P	K	50V	[E5]
C1919	CERAMIC	0.01U	K	50V	[E4]
C1929	CERAMIC	5P	C	50V	[E5]
C1930	CERAMIC	5P	C	50V	[E5]
C2910	CERAMIC	0.018U	K	50V	[B2]
C2911	CERAMIC	0.1U	K	25V	[B2]
C2913	CERAMIC	5600P	K	50V	[B2]
C3351	CERAMIC	0.1U	Z	25V	[G2]
C3401	CERAMIC	1U	Z	16V	[G3]
C3404	CERAMIC	0.1U	Z	25V	[H3]
C3501	TA-SOLID	4.7U	M	6.3V	[H3]
C3502	CERAMIC	0.01U	K	50V	[H3]
C3503	CERAMIC	0.1U	Z	25V	[H2]
C3504	CERAMIC	1U	Z	16V	[H3]
C3505	CERAMIC	22P	J	50V	[G3]
C3506	CERAMIC	27P	J	50V	[G3]
C3507	CERAMIC	22P	J	50V	[G3]
C3509	CERAMIC	0.01U	K	50V	[H3]
C3510	CERAMIC	0.01U	K	50V	[H4]
C3513	CERAMIC	22P	J	50V	[G3]
C3602	CERAMIC	0.1U	Z	25V	[G4]
C3603	CERAMIC	0.1U	Z	25V	[H4]
C3604	CERAMIC	0.1U	Z	25V	[H4]
C3607	CERAMIC	0.1U	Z	25V	[G5]
C3801	CERAMIC	0.015U	K	50V	[B5]
C3802	CERAMIC	0.015U	K	50V	[B5]
C3803	CERAMIC	0.015U	K	50V	[B5]
C3804	CERAMIC	0.015U	K	50V	[B5]
C3805	TA-SOLID	0.22U	M	35V	[A5]
C3809	CERAMIC	0.1U	Z	25V	[A5]
C3822	CERAMIC	0.1U	Z	25V	[A5]
C3902	CERAMIC	0.01U	K	50V	[F5]
C3903	CERAMIC	0.01U	K	50V	[F5]
C3904	CERAMIC	100P	J	50V	[F5]
C3905	CERAMIC	0.01U	K	50V	[F5]
C3907	CERAMIC	0.1U	Z	25V	[F5]
CT321	TRIMMER,30PF				[G4]
D1001	DIODE MA123-(TW)				[D2]
D1301	DIODE 1SS302-TE85L				[C4]
D3102	DIODE MA141WK-TX				[G1]
D3103	DIODE MA141WK-TX				[E1]
D3104	DIODE MA141WK-TX				[E1]
D3105	DIODE MA141WK-TX				[A2]
D3106	DIODE MA141WK-TX				[A2]
IC101	IC LA7461W-TRM				[E2]
IC111	IC CXL1506M-T4				[C2]
IC121	IC LV4001W-TRM				[F2]
IC161	IC CXA1203N-T4				[F4]
IC191	IC CXA1202R-T4				[E4]
IC341	IC S-8420BF-T1				[H3]
IC351	IC M37773M4A101HP				[G2]
IC361	IC LB1881MMT-TP-T1				[G4]
IC381	IC LB1885M-A-TP-T1				[B4]
IC391	IC MPC1720MR1				[F5]
L1015	COIL,INDUCTOR 100U J				[E4]
L1104	CORE				[C3]
L1106	HF CHOKE				[C3]
L1211	HF CHOKE				[D3]
L1307	HF CHOKE				[D4]
L1308	HF CHOKE				[D4]
L1340	COIL,INDUCTOR 150U J				[D4]
L1341	COIL,INDUCTOR 68U J				[D4]
L1342	COIL,INDUCTOR 8.2U J				[C4]
L1361	COIL,INDUCTOR 100U J				[F3]
L1362	COIL,INDUCTOR 150U J				[F3]
L1603	HF CHOKE				[E4]
L3201	HF CHOKE				[G4]
L3501	COIL,INDUCTOR 47UK				[H3]
Q1002	TR DTC144EU-T106				[E2]
Q1004	TR 2SB1218A-R-TX				[E3]
Q1005	TR 2SC4211-6-TL				[D2]
Q1006	TR DTC144EU-T106				[E2]
Q1007	TR 2SC4211-6-TL				[E3]
Q1008	TR DTC144EU-T106				[E3]
Q1009	TR DTC144EU-T106				[E2]
Q1011	TR DTC144EU-T106				[F2]
Q1023	TR 2SC4211-6-TL				[E3]
Q1024	TR DTC144EU-T106				[E3]
Q1025	TR 2SB1218A-R-TX				[F3]
Q1031	TR 2SC4211-6-TL				[F2]
Q1091	TR DTA144EU-T106				[E2]
Q1092	TR 2SC4211-6-TL				[F2]
Q1093	TR DTC144EU-T106				[E2]
Q1094	TR DTC144EU-T106				[E2]
Q1105	TR 2SC4211-6-TL				[D3]
Q1107	TR 2SC4211-6-TL				[C3]
Q1202	TR XN1213-TW				[F2]
Q1205	TR 2SC4211-6-TL				[D3]
Q1305	TR 2SC4211-6-TL				[D4]
Q1306	TR DTC144EU-T106				[C4]
Q1308	TR DTA144EU-T106				[C4]
Q1343	TR 2SC4211-6-TL				[C4]
Q1344	TR 2SC4211-6-TL				[D4]
Q1361	TR 2SB1218A-R-TX				[F3]
Q1413	TR 2SB815-B6-TB				[E3]
Q1422	TR 2SA1745-6-TL				[B2]
Q1602	TR 2SC4211-6-TL				[F4]
Q1604	TR 2SC4211-6-TL				[F4]
Q1605	TR DTA144EU-T106				[F4]
Q1901	TR DTC144EU-T106				[D4]
Q2902	TR 2SC4211-6-TL				[B2]
Q2903	TR 2SC4211-6-TL				[B2]
Q3351	TR 2SC4398-TL				[A2]
Q3352	TR 2SA1677-TL				[G2]
Q3501	TR 2SA1745-6-TL				[H2]
Q3802	TR DTC144EU-T106				[A5]
R1000	MT-GLAZE	2.7K	JA	1/16W	[E3]
R1003	MT-GLAZE	68	JA	1/16W	[D2]
R1004	MT-GLAZE	4.7K	JA	1/16W	[D2]
R1005	MT-GLAZE	1	JA	1/10W	[E3]
R1006	MT-GLAZE	3.3	JA	1/10W	[D2]
R1007	MT-GLAZE	5.6K	JA	1/16W	[D2]
R1010	MT-GLAZE	68K	JA	1/16W	[E3]
R1011	MT-GLAZE	100K	JA	1/16W	[E2]
R1012	MT-GLAZE	4.7K	JA	1/16W	[D2]
R1022	MT-GLAZE	560	JA	1/16W	[E3]
R1023	MT-GLAZE	3.9K	JA	1/16W	[E3]
R1024	MT-GLAZE	7.5	JA	1/10W	[D3]
R1025	MT-GLAZE	4.3K	JA	1/16W	[E3]
R1026	MT-GLAZE	470	JA	1/16W	[E3]
R1027	MT-GLAZE	1.2K	JA	1/16W	[E3]
R1028	MT-GLAZE	820K	JA	1/16W	[E2]
R1029	MT-GLAZE	8.2K	JA	1/16W	[E2]
R1030	MT-GLAZE	0.000	ZA	1/16W	[E2]
R1033	MT-GLAZE	10K	JA	1/16W	[E2]
R1034	MT-GLAZE	18K	JA	1/16W	[E2]
R1036	MT-GLAZE	5.6K	JA	1/16W	[E2]
R1037	MT-GLAZE	1M	JA	1/16W	[E2]
R1038	MT-GLAZE	47K	JA	1/16W	[E2]
R1039	MT-GLAZE	820	JA	1/16W	[E2]
R1040	MT-GLAZE	10K	JA	1/16W	[D3]
R1061	MT-GLAZE	22	JA	1/10W	[D3]
R1065	MT-FILM	3.3K	DU	1/16W	[F3]
R1066	MT-GLAZE	68K	JA	1/16W	[E3]
R1067	MT-FILM	1.8K	DU	1/16W	[F3]
R1068	MT-GLAZE	680	JA	1/16W	[F4]
R1069	MT-GLAZE	680	JA	1/16W	[F3]
R1070	MT-GLAZE	27K	JA	1/16W	[F4]
R1071	MT-GLAZE	18K	JA	1/16W	[F4]
R1082	MT-GLAZE	6.8K	JA	1/16W	[D2]
R1083	MT-FILM	10K	DU	1/16W	[D3]
R1084	MT-GLAZE	22K	JA	1/16W	[E3]
R1086	MT-FILM	3.9K	DU	1/16W	[D3]
R1087	MT-GLAZE	2.7K			
R1092	MT-GLAZE	12K			
R1093	MT-GLAZE	47K			
R1094	MT-GLAZE	2.2K			
R1095	MT-GLAZE	47K			
R1100	MT-GLAZE	10K			
R1101	MT-GLAZE	560K			
R1104	MT-GLAZE	0.000			
R1105	MT-GLAZE	82K			
R1106	MT-GLAZE	120			
R1122	MT-GLAZE	68			
R1123	MT-GLAZE	270			
R1124	MT-GLAZE	220			
R1125	MT-GLAZE	680			
R1131	MT-GLAZE	1K			
R1132	MT-GLAZE	2.2			
R1133	MT-GLAZE	0.000			
R1201	MT-GLAZE	8.2K			
R1202	MT-GLAZE	3.9K			
R1204	MT-GLAZE	1.3K			
R1207	MT-GLAZE	39K			
R1210	MT-GLAZE	680			
R1212	MT-GLAZE	0.000			
R1215	MT-GLAZE	1K			
R1216	MT-GLAZE	330			
R1218	MT-GLAZE	0.000			
R1221	MT-GLAZE	1.8K			
R1222	MT-GLAZE	1K			
R1224	MT-GLAZE	1K			
R1225	MT-GLAZE	1K			
R1226	MT-GLAZE	390			
R1235	MT-GLAZE	12K			
R1236	MT-GLAZE	3.3K			
R1239	MT-GLAZE	680			
R1240	MT-GLAZE	750			
R1241	MT-GLAZE	10K			
R1310	MT-GLAZE	1.5K			
R1311	MT-GLAZE	820			
R1312	MT-GLAZE	12K			
R1313	MT-GLAZE	10K			
R1314	MT-GLAZE	1.2K			
R1315	MT-GLAZE	390			
R1317	MT-GLAZE	1.8K			
R1324	MT-GLAZE	1.5K			
R1342	MT-GLAZE	560			
R1343	MT-GLAZE	560			
R1344	MT-GLAZE	5.6K			
R1348	MT-GLAZE	680			
R1349	MT-GLAZE	680			
R1350	MT-GLAZE	100			
R1351	MT-GLAZE	560			
R1352	MT-FILM	270			
R1353	MT-GLAZE	27			
R1354	MT-GLAZE	3.3K			

VF1 BOARD (SIDE B)



CN107

1	INT MIC
2	MIC GND

CN108

1	V/A 5V
2	GND
3	VF VIDEO
4	VF 5V

TO VF1

CN318

1	DRUM COM
2	FG(+)
3	FG COM
4	DRUM U
5	DRUM V
6	DRUM W
7	PG(+)
8	H GND
9	NOT USED
10	H VCC

TO CYLINDER

CN106

1	GND
2	FE (X)
3	FE (Y)
4	GND
5	CH B (X)
6	CH B (Y)
7	GND
8	CH A (Y)
9	CH A (X)

TO CYLINDER

J1005

1	NOT USED
2	RF SW1
3	PB RF
4	RF SW2
5	FO
6	CCD ON
7	CAM/LINE
8	Y+C IN
9	C IN
10	Y IN
11	GND

CN314

1	UNLOAD
2	LOAD
3	MODE SW 0
4	MODE SW 1
5	MODE SW 2
6	GND
7	DEW

TO MECHA

CN316

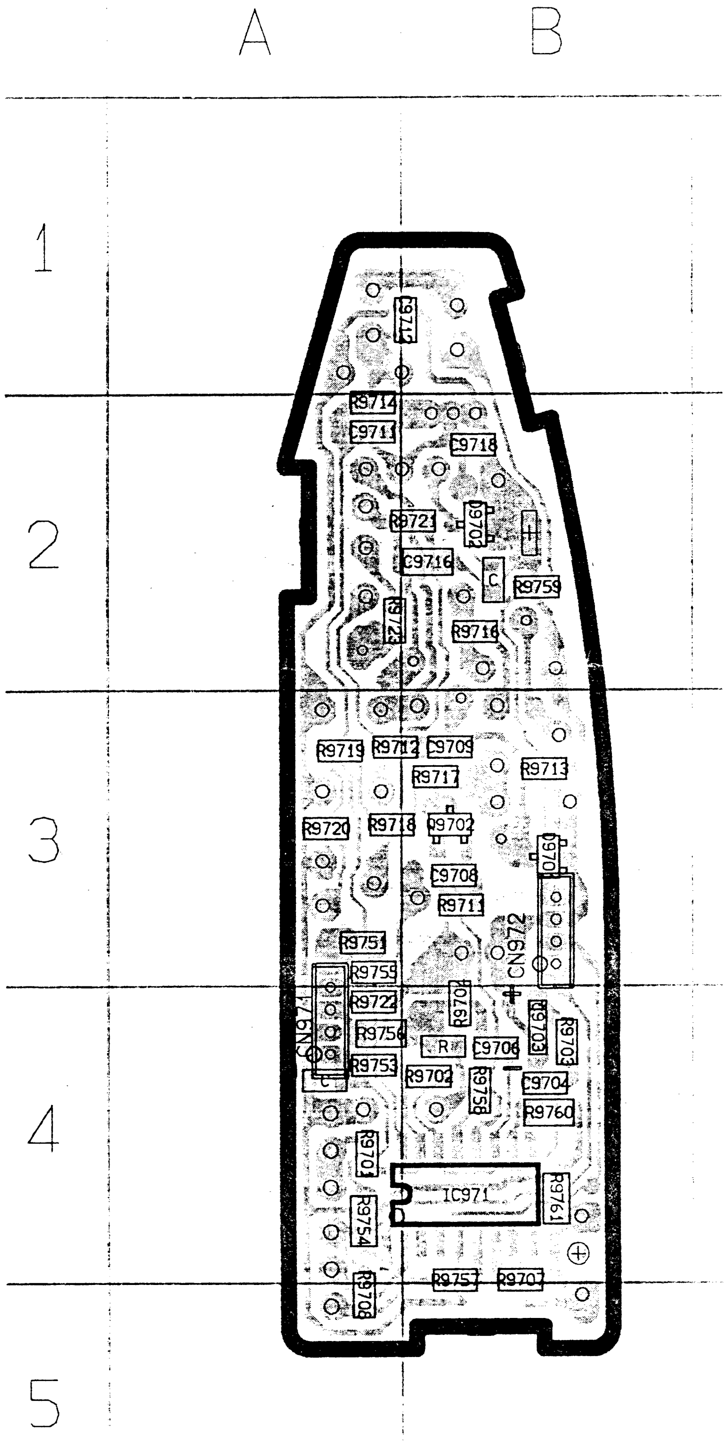
1	FG GND
2	FG OUT 2
3	FG VCC
4	FG OUT 1
5	HE VCC
6	HU -
7	HU +
8	HV -
9	HV +
10	HW -
11	HW +
12	HE GND
13	CAP V
14	CAP U
15	CAP W

TO CAPSTAN

CN311

1	UNREG GND
2	UNREG GND
3	GND
4	GND
5	UNREG
6	DRUM VS
7	CAP VS
8	DRUM PWM
9	CAP PWM
10	CAMERA ON
11	VTR ON
12	S/S 5V
13	VF 5V
14	VA 5V
15	STBY SW
16	S/S SW
17	EJECT SW
18	NOT USED
19	EAR R OUT
20	EAR L OUT

TO PW1



CN971

1	V/A 5V
2	GND
3	VIDEO
4	VF 5V

CN972

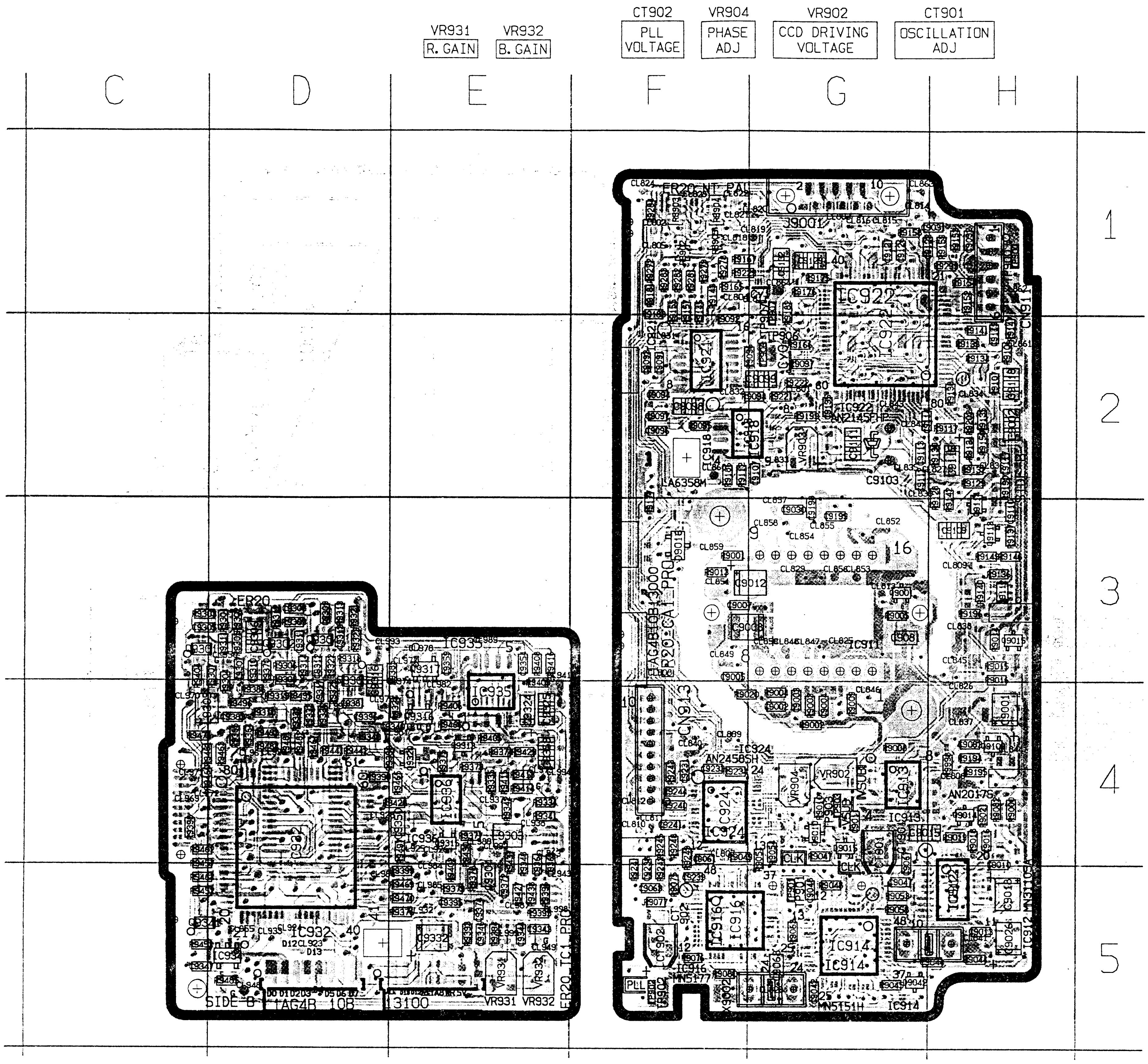
1	DV1
2	DV2
3	DH1
4	DH2

1087	MT-GLAZE	2.7K	JA	1/16W	[E2]
1092	MT-GLAZE	12K	JA	1/16W	[F2]
1093	MT-GLAZE	47K	JA	1/16W	[F2]
1094	MT-GLAZE	2.2K	JA	1/16W	[E2]
1095	MT-GLAZE	47K	JA	1/16W	[F2]
1100	MT-GLAZE	10K	JA	1/16W	[E3]
1101	MT-GLAZE	560K	JA	1/16W	[C3]
1104	MT-GLAZE	0.000	ZA	1/16W	[C2]
1105	MT-GLAZE	82K	JA	1/16W	[C2]
1106	MT-GLAZE	120	JA	1/16W	[C2]
1122	MT-GLAZE	68	JA	1/16W	[D3]
1123	MT-GLAZE	270	JA	1/16W	[C3]
1124	MT-GLAZE	220	JA	1/16W	[C3]
1125	MT-GLAZE	680	JA	1/16W	[C3]
1131	MT-GLAZE	1K	JA	1/16W	[C3]
1132	MT-GLAZE	2.2	JA	1/10W	[C3]
1133	MT-GLAZE	0.000	ZA	1/16W	[C2]
1201	MT-GLAZE	8.2K	JA	1/16W	[F3]
1202	MT-GLAZE	3.9K	JA	1/16W	[G2]
1204	MT-GLAZE	1.3K	JA	1/16W	[F2]
1207	MT-GLAZE	39K	JA	1/16W	[G2]
1210	MT-GLAZE	680	JA	1/16W	[E3]
1212	MT-GLAZE	0.000	ZA	1/16W	[F2]
1215	MT-GLAZE	1K	JA	1/16W	[F3]
1216	MT-GLAZE	330	JA	1/16W	[F3]
1218	MT-GLAZE	0.000	ZA	1/16W	[F3]
1221	MT-GLAZE	1.8K	JA	1/16W	[F3]
1222	MT-GLAZE	1K	JA	1/16W	[F3]
1224	MT-GLAZE	1K	JA	1/16W	[D3]
1225	MT-GLAZE	1K	JA	1/16W	[D3]
1226	MT-GLAZE	390	JA	1/16W	[D3]
1235	MT-GLAZE	12K	JA	1/16W	[F2]
1236	MT-GLAZE	3.3K	JA	1/16W	[F2]
1239	MT-GLAZE	680	JA	1/16W	[D3]
1240	MT-GLAZE	750	JA	1/16W	[F2]
1241	MT-GLAZE	10K	JA	1/16W	[F2]
1310	MT-GLAZE	1.5K	JA	1/16W	[D4]
1311	MT-GLAZE	820	JA	1/16W	[C4]
1312	MT-GLAZE	12K	JA	1/16W	[D4]
1313	MT-GLAZE	10K	JA	1/16W	[D4]
1314	MT-GLAZE	1.2K	JA	1/16W	[D4]
1315	MT-GLAZE	390	JA	1/16W	[D4]
1317	MT-GLAZE	1.8K	JA	1/16W	[D4]
1324	MT-GLAZE	1.5K	JA	1/16W	[C4]
1342	MT-GLAZE	560	JA	1/16W	[D4]
1343	MT-GLAZE	560	JA	1/16W	[D4]
1344	MT-GLAZE	5.6K	JA	1/16W	[D4]
1348	MT-GLAZE	680	JA	1/16W	[D4]
1349	MT-GLAZE	680	JA	1/16W	[C4]
1350	MT-GLAZE	100	JA	1/16W	[C4]
1351	MT-GLAZE	560	JA	1/16W	[C4]
1352	MT-FILM	270	DU	1/16W	[D4]
1353	MT-GLAZE	27	JA	1/16W	[D4]
1354	MT-GLAZE	3.3K	JA	1/16W	[E4]
R1355	MT-GLAZE	1.2K	JA	1/16W	[E3]
R1356	MT-FILM	220	DU	1/16W	[D4]
R1361	MT-GLAZE	4.7K	JA	1/16W	[F3]
R1362	MT-GLAZE	680	JA	1/16W	[F3]
R1363	MT-GLAZE	2.2K	JA	1/16W	[F3]
R1374	MT-GLAZE	10	JA	1/10W	[F4]
R1410	MT-GLAZE	1.5K	JA	1/16W	[F3]
R1412	MT-GLAZE	1.5K	JA	1/16W	[F3]
R1413	MT-GLAZE	1.5K	JA	1/16W	[F3]
R1421	MT-GLAZE	1K	JA	1/16W	[B2]
R1422	MT-GLAZE	3.6K	JA	1/16W	[C2]
R1424	MT-GLAZE	3.3	JA	1/10W	[B2]
R1602	MT-GLAZE	10K	JA	1/16W	[F4]
R1605	MT-GLAZE	10K	JA	1/16W	[F4]
R1606	MT-GLAZE	1.5K	JA	1/16W	[F4]
R1608	MT-GLAZE	1.5K	JA	1/16W	[F4]
R1610	MT-GLAZE	2.7K	JA	1/16W	[F4]
R1611	MT-GLAZE	1.8K	JA	1/16W	[F4]
R1612	MT-GLAZE	100K	JA	1/16W	[F4]
R1613	MT-GLAZE	1K	JA	1/16W	[F4]
R1614	MT-GLAZE	330	JA	1/16W	[E4]
R1621	MT-GLAZE	33K	JA	1/16W	[F4]
R1622	MT-GLAZE	47K	JA	1/16W	[F4]
R1623	MT-GLAZE	22K	JA	1/16W	[F4]
R1905	MT-GLAZE	22K	JA	1/16W	[D5]
R1906	MT-GLAZE	1.5K	JA	1/16W	[D4]
R1907	MT-GLAZE	56K	JA	1/16W	[D4]
R1908	MT-GLAZE	24K	JA	1/16W	[D5]
R1909	MT-GLAZE	39K	JA	1/16W	[E5]
R1910	MT-GLAZE	56K	JA	1/16W	[E4]
R1911	MT-GLAZE	22K	JA	1/16W	[E4]
R1912	MT-GLAZE	1.5K	JA	1/16W	[E4]
R1918	MT-GLAZE	39K	JA	1/16W	[F5]
R1919	MT-GLAZE	220K	JA	1/16W	[E5]
R1920	MT-GLAZE	39K	JA	1/16W	[F5]
R1921	MT-GLAZE	220K	JA	1/16W	[E5]
R1924	MT-GLAZE	10K	JA	1/16W	[D5]
R1925	MT-GLAZE	820	JA	1/16W	[D4]
R1926	MT-GLAZE	2.2K	JA	1/16W	[D4]
R1981	MT-GLAZE	0.000	ZA	1/16W	[F5]
R1982	MT-GLAZE	0.000	ZA	1/16W	[F4]
R1983	MT-GLAZE	0.000	ZA	1/16W	[G3]
R2022	MT-GLAZE	1.2K	JA	1/16W	[B2]
R2040	MT-GLAZE	1K	JA	1/16W	[B2]
R2901	MT-GLAZE	1K	JA	1/16W	[B2]
R2902	MT-GLAZE	1.2K	JA	1/16W	[B2]
R2910	MT-GLAZE	2.2K	JA	1/16W	[B2]
R2911	MT-GLAZE	0.000	ZA	1/16W	[A2]
R2912	MT-GLAZE	22K	JA	1/16W	[B2]
R2913	MT-GLAZE	27K	JA	1/16W	[B2]
R2914	MT-GLAZE	180	JA	1/16W	[B2]
R2915	MT-GLAZE	2.2K	JA	1/16W	[B2]
R2917	MT-GLAZE	4.7K	JA	1/16W	[A2]
R2920	MT-GLAZE	220	JA	1/16W	[B2]
R3309	MT-GLAZE	100K	JA	1/16W	[D5]
R3351	MT-GLAZE	470	JA	1/16W	[A2]
R3352	MT-GLAZE	5.6	JA	1/16W	[G2]
R3401	MT-GLAZE	1K	JA	1/16W	[A1]
R3402	MT-GLAZE	100K	JA	1/16W	[H3]
R3504	MT-GLAZE	10K	JA	1/16W	[G3]
R3505	MT-GLAZE	10K	JA	1/16W	[G3]
R3506	MT-GLAZE	10K	JA	1/16W	[G3]
R3512	MT-GLAZE	1M	JA	1/16W	[G3]
R3513	MT-GLAZE	1K	JA	1/16W	[G3]
R3514	MT-GLAZE	3.3M	JA	1/16W	[G3]
R3517	MT-GLAZE	100K	JA	1/16W	[H2]
R3521	MT-FILM	100K	DD	1/16W	[H4]
R3522	MT-GLAZE	15K	JA	1/16W	[H4]
R3523	MT-FILM	100K	DD	1/16W	[H3]
R3524	MT-GLAZE	270K	JA	1/16W	[H2]
R3525	MT-GLAZE	10K	JA	1/16W	[H2]
R3526	MT-GLAZE	47K	JA	1/16W	[H2]
R3573	MT-GLAZE	47K	JA	1/16W	[G2]
R3575	MT-GLAZE	10K	JA	1/16W	[H2]
R3576	MT-GLAZE	10K	JA	1/16W	[H2]
R3601	MT-GLAZE	22K	JA	1/16W	[H4]
R3602	MT-GLAZE	4.7	JA	1/16W	[G5]
R3603	MT-GLAZE	4.7	JA	1/16W	[H4]
R3604	MT-GLAZE	4.7	JA	1/16W	[H4]
R3605	MT-GLAZE	39K	JA	1/16W	[G4]
R3606	MT-GLAZE	100K	JA	1/16W	[G5]
R3608	MT-GLAZE	3.3K	JA	1/16W	[G5]
R3609	MT-GLAZE	1.8K	JA	1/16W	[G5]
R3610	MT-GLAZE	0.000	ZA	1/16W	[G4]
R3801	MT-GLAZE	56K	JA	1/16W	[B4]
R3802	MT-GLAZE	56K	JA	1/16W	[B4]
R3803	MT-GLAZE	56K	JA	1/16W	[B5]
R3804	MT-GLAZE	12K	JA	1/16W	[B5]
R3805	MT-GLAZE	1	JA	1/10W	[B4]
R3806	MT-GLAZE	1	JA	1/10W	[B4]
R3807	MT-GLAZE	270K	JA	1/16W	[A5]
R3808	MT-GLAZE	39K	JA	1/16W	[A5]
R3812	MT-GLAZE	1K	JA	1/16W	[A5]
R3814	MT-GLAZE	1K	JA	1/16W	[A4]
R3818	MT-GLAZE	0.000	ZA	1/16W	[B5]
R3820	MT-GLAZE	10K	JA	1/16W	[A4]
R3821	MT-GLAZE	10K	JA	1/16W	[A4]
R3902	MT-GLAZE	3.9K	JA	1/16W	[F5]
RB315	R-NETWORK	100KX2		0.063W	[G2]
RB331	R-NETWORK	100KX2		0.063W	[D5]
S3103	SW,PUSH				[A4]
S3104	SW,PUSH				[A4]
S3109	SW,PUSH				[B3]
S3110	SW,PUSH				[B3]
S3111	SW,PUSH				[A3]
S3114	SW,PUSH				[A3]
S3115	SW,PUSH				[A3]
TP101	TERMINAL,TESTPIN				[D3]
TP102	TERMINAL,TESTPIN				[E3]
TP103	TERMINAL,TESTPIN				[E4]
TP191	TERMINAL,TESTPIN				[D4]
VR101	SVR 10K				[E2]
VR102	SVR 47K				[D3]
VR103	SVR 10K				[D3]
VR104	SVR 10K				[D3]
VR106	SVR 10K				[F3]
VR108	SVR 470				[D4]
VR111	SVR 4.7K				[D2]
VR132	SVR 4.7K				[F4]
VR201	SVR 10K				[B2]
VR351	SVR 100K				[H4]

LEADLESS COMPONENT PARTS LOCATION GUIDE
VF1 BOARD (SIDE B)

C9703	TA-SOLID	1U	M	16V	[B4]
C9704	CERAMIC	1500P	K	50V	[B4]
C9706	CERAMIC	1U	Z	16V	[B4]
C9708	CERAMIC	47P	J	50V	[B3]
C9709	CERAMIC	0.1U	Z	50V	[B3]
C9711	CERAMIC	0.1U	Z	25V	[A2]
C9716	CERAMIC	0.022U	K	100V	[B2]
C9718	CERAMIC	1000P	J	50V	[B2]
D9701	DIODE DSB010-TB				[B3]
D9702	DIODE SB02-09CP-TB				[B2]
IC971	IC BA7149F-T1				[B4]
Q9702	TR 2SA1257-G5-TB				[B3]
R9701	MT-GLAZE	100K	JA	1/10W	[A4]
R9702	MT-GLAZE	390K	JA	1/10W	[B4]
R9703	MT-GLAZE	10K	JA	1/10W	[B4]
R9704	MT-GLAZE	27	JA	1/10W	[B4]
R9707	MT-GLAZE	18K	JA	1/10W	[B4]
R9708	MT-GLAZE	3.9	JA	1/10W	[A5]
R9711	MT-GLAZE	4.7K	GA	1/10W	[B3]
R9712	MT-GLAZE	22K	GA	1/10W	[A3]
R9713	MT-GLAZE	3.3M	JA	1/10W	[B3]
R9714	MT-GLAZE	330	JA	1/10W	[A2]
R9716	MT-GLAZE	1.5M	JA	1/10W	[B2]
R9717	MT-GLAZE	3.3M	JA	1/10W	[B3]
R9718	MT-GLAZE	1.5M	JA	1/10W	[A3]
R9719	MT-GLAZE	0.000	ZA	1/10W	[A3]
R9720	MT-GLAZE	120K	JA	1/10W	[A3]
R9721	MT-GLAZE	1.5M	JA	1/10W	[B2]
R9722	MT-GLAZE	1K	JA	1/10W	[A4]
R9723	MT-GLAZE	4.7	JA	1/10W	[A2]
R9751	MT-GLAZE	0.000	ZA	1/10W	[A3]
R9753	MT-GLAZE	0.000	ZA	1/10W	[A4]
R9754	MT-GLAZE	0.000	ZA	1/8W	[A4]
R9755	MT-GLAZE	2.2	JA	1/10W	[A3]
R9756	MT-GLAZE	0.000	ZA	1/8W	[A4]
R9757	MT-GLAZE	0.000	ZA	1/10W	[B4]
R9758	MT-GLAZE	0.000	ZA	1/10W	[B4]
R9759	MT-GLAZE	0.000	ZA	1/10W	[B2]
R9760	MT-GLAZE	0.000	ZA	1/8W	[B4]
R9761	MT-GLAZE	0.000	ZA	1/8W	[B4]

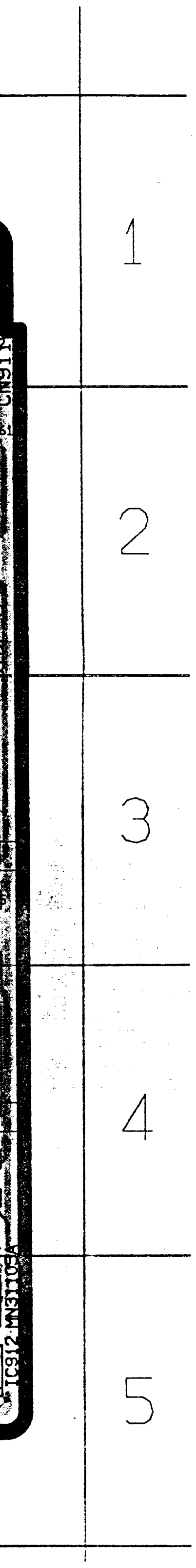
CA1/TC1 BOARD (SIDE B)



	J900
1	CAM A
2	LOA
3	DA
4	EVR.
5	DC
6	CS
7	TEST
8	CAM A
9	CAM A
10	ADJ.
11	UNR

LEADLESS COMPONENT PARTS LOCATION GUIDE
CA1/TC1 BOARD (SIDE B)

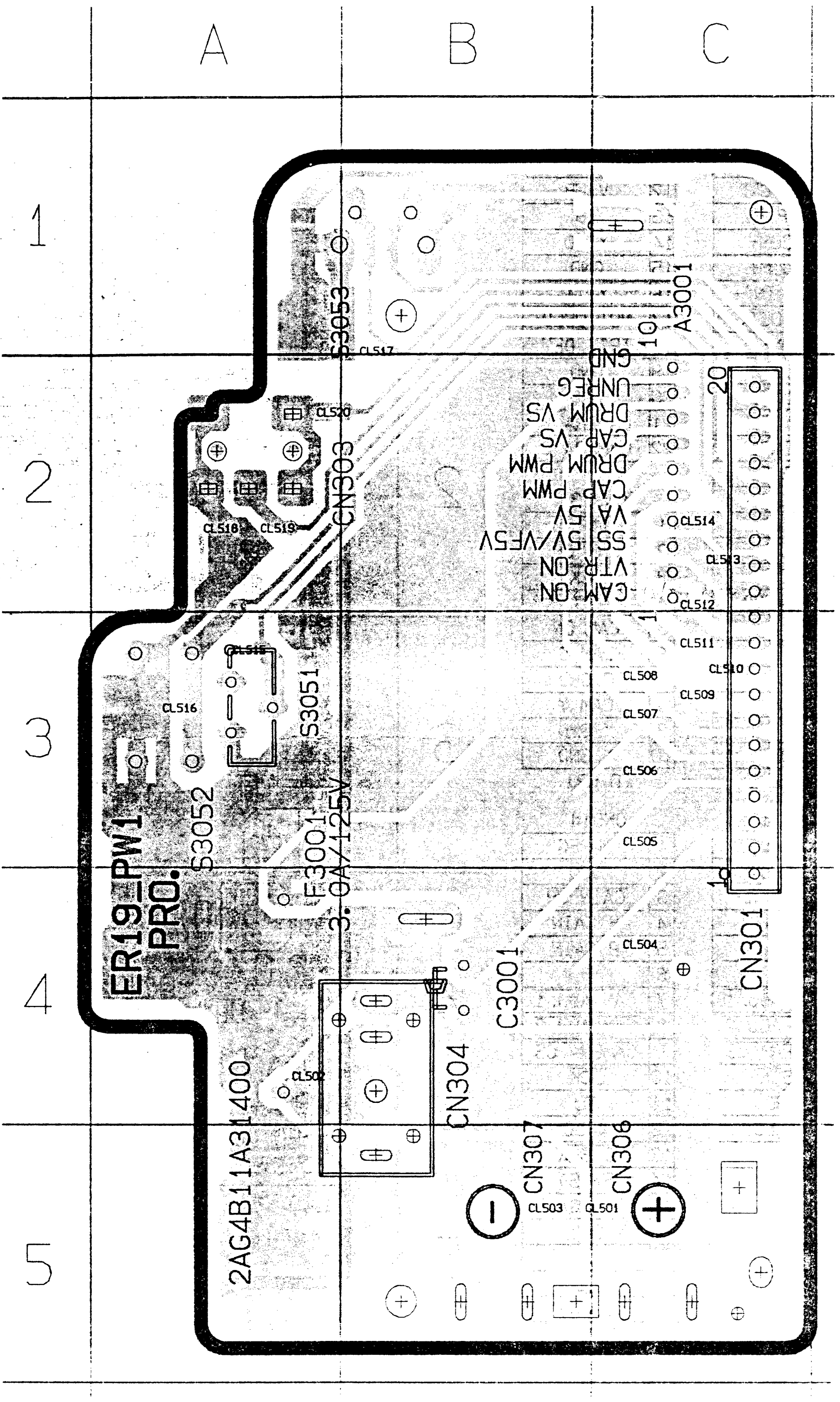
C9001	TA-SOLID	4.7U	M	10V	[H4]
C9002	CERAMIC	0.1U	Z	25V	[G4]
C9003	CERAMIC	0.1U	Z	25V	[G4]
C9004	CERAMIC	0.1U	Z	25V	[G4]
C9007	CERAMIC	0.1U	Z	25V	[F3]
C9008	TA-SOLID	1U	M	35V	[G3]
C9010	CERAMIC	0.1U	Z	25V	[H4]
C9013	CERAMIC	0.1U	Z	25V	[H5]
C9015	CERAMIC	1U	Z	16V	[G4]
C9016	CERAMIC	0.1U	Z	25V	[H4]
C9018	TA-SOLID	1U	M	35V	[H5]
C9030	CERAMIC	1500P	K	50V	[G3]
C9031	CERAMIC	0.1U	Z	25V	[H1]
C9042	CERAMIC	0.1U	Z	25V	[G5]
C9044	CERAMIC	15P	J	50V	[H5]
C9047	CERAMIC	15P	J	50V	[G5]
C9048	CERAMIC	47P	J	50V	[G5]
C9061	CERAMIC	0.1U	Z	25V	[F4]
C9063	CERAMIC	15P	J	50V	[F5]
C9068	CERAMIC	0.15U	Z	25V	[G5]
C9081	CERAMIC	0.22U	Z	25V	[G3]
C9082	CERAMIC	0.1U	Z	25V	[H4]
C9091	CERAMIC	0.01U	K	25V	[F2]
C9092	CERAMIC	0.1U	Z	25V	[F2]
C9094	CERAMIC	0.01U	K	25V	[F2]
C9096	CERAMIC	0.1U	Z	25V	[F2]
C9097	CERAMIC	0.01U	K	25V	[F2]
C9098	CERAMIC	1U	Z	16V	[F2]
C9099	CERAMIC	1U	Z	16V	[G2]
C9107	CERAMIC	0.1U	Z	25V	[G2]
C9109	CERAMIC	1U	Z	16V	[H3]
C9111	CERAMIC	1U	Z	16V	[G2]
C9112	CERAMIC	0.1U	Z	25V	[G2]
C9113	CERAMIC	0.1U	Z	25V	[G2]
C9114	CERAMIC	0.1U	Z	25V	[G2]
C9115	TA-SOLID	4.7U	M	6.3V	[H2]
C9117	CERAMIC	0.1U	Z	25V	[H2]
C9118	CERAMIC	1U	Z	16V	[H2]
C9119	CERAMIC	0.1U	Z	25V	[H2]
C9122	CERAMIC	0.1U	Z	25V	[G1]
C9126	CERAMIC	0.1U	Z	25V	[G1]
C9127	CERAMIC	0.1U	Z	25V	[G1]
C9129	CERAMIC	1U	Z	16V	[G1]
C9132	CERAMIC	1U	Z	16V	[G1]
C9198	CERAMIC	1000P	K	50V	[G3]
C9199	CERAMIC	1000P	K	50V	[G3]
C9231	CERAMIC	0.01U	K	25V	[F4]
C9233	CERAMIC	0.1U	Z	25V	[F4]
C9238	CERAMIC	22P	J	50V	[F5]
C9239	CERAMIC	1000P	K	50V	[F5]
C9241	CERAMIC	10P	D	50V	[F4]
C9304	CERAMIC	0.1U	Z	25V	[E5]
C9305	CERAMIC	0.1U	Z	25V	[C3]
C9306	CERAMIC	1U	Z	16V	[D3]
C9307	CERAMIC	0.1U	Z	25V	[D3]
C9308	CERAMIC	1500P	K	50V	[D3]
C9309	CERAMIC	1500P	K	50V	[D3]
C9310	CERAMIC	0.1U	Z	25V	[D3]
C9311	CERAMIC	180P	J	50V	[D3]
C9312	CERAMIC	180P	J	50V	[D3]
C9313	CERAMIC	0.1U	Z	25V	[D3]
C9316	CERAMIC	1U	Z	16V	[D3]
C9317	CERAMIC	0.01U	K	25V	[D4]
C9324	TA-SOLID	6.8U	M	6.3V	[E4]
C9325	CERAMIC	1U	Z	16V	[E4]
C9332	TA-SOLID	10U	M	6.3V	[E5]
C9340	CERAMIC	0.1U	Z	25V	[E4]
C9343	CERAMIC	0.1U	Z	25V	[E5]
C9344	CERAMIC	0.1U	Z	25V	[E5]
C9346	CERAMIC	0.1U	Z	25V	[E5]
C9347	CERAMIC	0.1U	Z	25V	[C5]
C9350	CERAMIC	0.1U	Z	25V	[E4]
C9353	CERAMIC	1U	Z	16V	[E4]
C9354	CERAMIC	0.1U	Z	25V	[E3]
C9359	CERAMIC	0.1U	Z	25V	[E3]
C9361	CERAMIC	27P	J	50V	[E4]
C9362	CERAMIC	47P	J	50V	[E4]
C9372	CERAMIC	0.1U	Z	25V	[E5]
C9374	CERAMIC	0.1U	Z	25V	[E5]
C9381	CERAMIC	3300P	K	50V	[D4]
C9396	CERAMIC	330P	J	50V	[D4]
CT901	TRIMMER,20PF				[G4]
CT902	TRIMMER,10PF				[F5]
D9015	DIODE MA141K-TX				[G4]
D9016	DIODE MA721-TX				[F3]
D9042	DIODE MA141K-TX				[G5]
IC912	IC MN3112SA-E1				[H5]
IC913	IC AN2017NS				[G4]
IC914	IC MN5151H-EF				[G5]
IC916	IC MN5177-EF				[F5]
IC918	IC LA6358NM-TP-T1				[G2]
IC921	IC MN3861SA-E1				[F2]
IC922	IC AN2145NFHP				[G2]
IC924	IC AN2458SH-E1				[F4]
IC932	IC MB89677A-103				[D4]
IC934	IC SC14S71FEL				[D5]
IC935	IC NJM3414M-T1				[E4]
IC936	IC LA6358NM-TP-T1				[E4]
L9002	INDUCTOR,600 OHM				[H2]
L9303	COIL,INDUCTOR 330U K				[E4]
Q9001	TR 2SC4399-5-TL				[G3]
Q9010	TR 2SB1218A-R-TX				[G4]
Q9014	TR 2SC4211-6-TL				[H4]
Q9109	TR 2SC4399-5-TL				[H4]
Q9112	TR XP4401-TW				[H3]
Q9113	TR 2SC4211-6-TL				[H3]
Q9114	TR 2SB1218A-R-TX				[H3]
Q9301	TR XP4401-TW				[C3]
Q9302	TR XP4501-TW				[D3]
Q9304	TR XP4501-TW				[D3]
Q9305	TR XP4501-TW				[D3]
Q9313	TR 2SC4211-6-TL				[E4]
Q9315	TR DTC115EU-T106				[E4]
Q9316	TR FMA5-T99				[E4]
Q9317	TR FMG8-T99				[E3]
Q9320	TR 2SC4211-6-TL				[E4]
Q9341	TR XP4601-TW				[C5]
R9001	MT-GLAZE	0.000	ZA	1/16W	[F3]
R9002	MT-GLAZE	0.000	ZA	1/16W	[G4]
R9005	MT-GLAZE	3.3K	JA	1/16W	[G3]
R9009	MT-GLAZE	0.000	ZA	1/16W	[G4]
R9010	MT-GLAZE	10K	JA	1/16W	[G4]
R9018	MT-GLAZE	3.9K	JA	1/16W	[H4]
R9019	MT-GLAZE	12K	JA	1/16W	[H4]
R9020	MT-GLAZE	1M	JA	1/16W	[F4]
R9021	MT-GLAZE	22K	JA	1/16W	[H4]
R9044	MT-GLAZE	0.000	ZA	1/16W	[H5]
R9045	MT-GLAZE	820	JA	1/16W	[G5]
R9047	MT-GLAZE	10K	JA	1/16W	[G4]
R9048	MT-GLAZE	5.6K	JA	1/16W	[G5]
R9049	MT-GLAZE	680	JA	1/16W	[F4]
R9051	MT-GLAZE	220	JA	1/16W	[G4]
R9053	MT-GLAZE	1M	JA	1/16W	[G5]
R9054	MT-GLAZE	820	JA	1/16W	[G4]
R9058	MT-GLAZE	0.000	ZA	1/16W	[G5]
R9063	MT-GLAZE	5.6K	JA	1/16W	[G5]
R9075	MT-GLAZE	1.5K	JA	1/16W	[F5]
R9076	MT-GLAZE	1M	JA	1/16W	[F5]
R9077	MT-GLAZE	220	JA	1/16W	[F5]
R9080	MT-GLAZE	0.000	ZA	1/16W	[F5]
R9082	MT-GLAZE	10K	JA	1/16W	[H4]
R9092	MT-GLAZE	1K	JA	1/16W	[F2]
R9094	MT-GLAZE	1.5K	JA	1/16W	[G2]
R9095	MT-GLAZE	1K	JA	1/16W	[F2]
R9096	MT-GLAZE	1K	JA	1/16W	[G2]
R9097	MT-GLAZE	1.5K	JA	1/16W	[G2]
R9106	MT-GLAZE	15K	JA	1/16W	[H2]
R9107	MT-GLAZE	22K	JA	1/16W	[H2]
R9112	MT-GLAZE	220K	JA	1/16W	[F2]
R9117	MT-GLAZE	39K	JA	1/16W	[H2]
R9128	MT-GLAZE	33K	JA	1/16W	[H2]
R9130	MT-GLAZE	12K	JA	1/16W	[H2]
R9131	MT-GLAZE	27K	JA	1/16W	[H2]
R9135	MT-GLAZE	33K	JA	1/16W	[H2]
R9136	MT-GLAZE	10K	JA	1/16W	[H3]
R9137	MT-GLAZE	10K	JA	1/16W	[H3]
R9138	MT-GLAZE	33K	JA	1/16W	[H2]
R9140	MT-GLAZE	22K	JA	1/16W	[H3]
R9141	MT-GLAZE	3.9K	JA	1/16W	[H2]
R9142	MT-GLAZE	22K	JA	1/16W	[H3]
R9143	MT-GLAZE	22K	JA	1/16W	[F1]
R9145	MT-GLAZE	22K	JA	1/16W	[F1]
R9147	MT-GLAZE	6.8K	JA	1/16W	[H2]
R9149	MT-GLAZE	0.000	ZA	1/16W	[H3]
R9150	MT-GLAZE	12K	JA	1/16W	[H2]
R9152	MT-GLAZE	27K	JA	1/16W	[H1]
R9154	MT-GLAZE	9.1K	JA	1/16W	[H1]
R9155	MT-GLAZE	15K	JA	1/16W	[F1]
R9157	MT-GLAZE	39K	JA	1/16W	[F1]
R9159	MT-GLAZE	22K	JA	1/16W	[H1]
R9165	MT-GLAZE	10K	JA	1/16W	[F1]
R9166	MT-GLAZE	2.2M	JA	1/16W	[G2]
R9167	MT-GLAZE	10K	JA	1/16W	[F1]
R9175	MT-GLAZE	5.6K	JA	1/16W	[G1]
R9176	MT-GLAZE	5.6K	JA	1/16W	[G1]
R9177	MT-GLAZE	47K	JA	1/16W	[F3]
R9181	MT-GLAZE	10K	JA	1/16W	[F1]
R9182	MT-GLAZE	3.3M	JA	1/16W	[G1]
R9183	MT-GLAZE	10K	JA	1/16W	[F1]
R9190	MT-GLAZE	10K	JA	1/16W	[H2]
R9194	MT-GLAZE	100	JA	1/16W	[H4]
R9196	MT-GLAZE	2.2K	JA	1/16W	[H3]
R9199	MT-FILM	27K	DU	1/16W	[G2]
R9234	MT-GLAZE	8.2K	JA	1/16W	[F4]
R9240	MT-GLAZE	0.000	ZA	1/16W	[F4]
R9241	MT-GLAZE	1.2K	JA	1/16W	[F5]
R9242	MT-GLAZE	6.8K	JA	1/16W	[F5]
R9245	MT-GLAZE	22K	JA	1/16W	[F4]
R9248	MT-GLAZE	1K	JA	1/16W	[F4]
R9249	MT-GLAZE	22K	JA	1/16W	[F4]
R9272	MT-GLAZE	22K	JA	1/16W	[F1]
R9278	MT-GLAZE	10K	JA	1/16W	[F1]
R9279	MT-GLAZE	10K	JA	1/16W	[F1]
R9281	MT-GLAZE	10K	JA	1/16W	[F1]
R9282	MT-GLAZE	15K	JA	1/16W	[F1]
R9283	MT-GLAZE	22K	JA	1/16W	[F1]
R9284	MT-GLAZE	1K	JA	1/16W	[F1]
R9299	MT-GLAZE	18K	JA	1/16W	[H1]
R9301	MT-GLAZE	39K	JA	1/16W	[D3]
R9302	MT-GLAZE	2.7K	JA	1/16W	[D3]
R9303	MT-GLAZE	1.5K	JA	1/16W	[C3]
R9304	MT-GLAZE	39K	JA	1/16W	[D4]
R9305	MT-GLAZE	1.8K	JA	1/16	
R9306	MT-GLAZE	2.2K	JA	1/16	
R9307	MT-GLAZE	0.000	ZA	1/16	
R9308	MT-GLAZE	560	JA	1/16	
R9309	MT-GLAZE	560	JA	1/16	
R9311	MT-GLAZE	0.000	ZA	1/16	
R9312	MT-GLAZE	2.2K	JA	1/16	
R9313	MT-GLAZE	560	JA	1/16	
R9314	MT-GLAZE	560	JA	1/16	
R9318	MT-GLAZE	5.6K	JA	1/16	
R9319	MT-GLAZE	1.5K	JA	1/16	
R9321	MT-GLAZE	2.7K	JA	1/16	
R9322	MT-GLAZE	2.2K	JA	1/16	
R9323	MT-GLAZE	1K	JA	1/16	
R9324	MT-GLAZE	470	JA	1/16	
R9325	MT-GLAZE	1.5K	JA	1/16	
R9330	MT-GLAZE	15K	JA	1/16	
R9332	MT-GLAZE	3.3K	JA	1/16	
R9333	MT-GLAZE	3.3K	JA	1/16	
R9334	MT-GLAZE	22K	JA	1/16	
R9335	MT-GLAZE	22K	JA	1/16	
R9340	MT-GLAZE	15K	JA	1/16	
R9341	MT-GLAZE	2.7K	JA	1/16	
R9342	MT-GLAZE	2.7K	JA	1/16	
R9348	MT-GLAZE	2.2K	JA	1/16	
R9364	MT-GLAZE	100K	JA	1/16	
R9365	MT-GLAZE	1K	JA	1/16	
R9370	MT-GLAZE	470	JA	1/16	
R9373	MT-FILM	2.2K	DU	1/16	
R9375	MT-GLAZE	10	JA	1/16	
R9376	MT-FILM	10K	DU	1/16	
R9377	MT-GLAZE	100K	JA	1/16	
R9378	MT-GLAZE	56K	JA	1/16	
R9379	MT-GLAZE	5.6K	JA	1/16	
R9380	MT-GLAZE	2.7K	JA	1/16	
R9385	MT-GLAZE	1K	JA	1/16	
R9390	MT-GLAZE	100K	JA	1/16	
R9393	MT-GLAZE	150K	JA	1/16	
R9394	MT-GLAZE	560K	JA	1/16	
R9395	MT-GLAZE	390K	JA	1/16	
R9396	MT-GLAZE	100K	JA	1/16	
R9398	MT-GLAZE	330K	JA	1/16	
R9399	MT-GLAZE	47K	JA	1/16	
R9402	MT-GLAZE	39K	JA	1/16	


1
2
3
4
5
CN911
IC912 MN3110SA

J9001

1	CAM ADJ. 3
2	LOAD
3	DA
4	EVR. CL
5	DO
6	CS
7	TEST1
8	CAM ADJ. 1
9	CAM ADJ. 2
10	ADJ. END
11	UNREG

PW1 BOARD (SIDE B)


A
B
C
1
2
3
4
5
S3053
A3001
10
1
20
GND
UNREG
DRUM VS
CAP VS
DRUM PWM
CAP PWM
VA 5V
SS 5V/VF5V
VTR ON
CAM ON
CN303
CL517
CL520
CL518
CL519
CL514
CL513
CL512
CL511
CL510
CL509
CL508
CL507
CL506
CL505
CL504
CL515
CL516
S3051
S3052
ER19_PW1
PRO.
F3001
3.0A/125V
C3001
CN301
CN304
CN307
CN306
CL502
CL503
CL501
2AG4B11A31400

R9305	MT-GLAZE	1.8K	JA	1/16W	[D3]
R9306	MT-GLAZE	2.2K	JA	1/16W	[D3]
R9307	MT-GLAZE	0.000	ZA	1/16W	[D3]
R9308	MT-GLAZE	560	JA	1/16W	[D3]
R9309	MT-GLAZE	560	JA	1/16W	[D3]
R9311	MT-GLAZE	0.000	ZA	1/16W	[D3]
R9312	MT-GLAZE	2.2K	JA	1/16W	[D3]
R9313	MT-GLAZE	560	JA	1/16W	[D3]
R9314	MT-GLAZE	560	JA	1/16W	[D3]
R9318	MT-GLAZE	5.6K	JA	1/16W	[D3]
R9319	MT-GLAZE	1.5K	JA	1/16W	[D4]
R9321	MT-GLAZE	2.7K	JA	1/16W	[D3]
R9322	MT-GLAZE	2.2K	JA	1/16W	[D3]
R9323	MT-GLAZE	1K	JA	1/16W	[D3]
R9324	MT-GLAZE	470	JA	1/16W	[E4]
R9325	MT-GLAZE	1.5K	JA	1/16W	[D4]
R9330	MT-GLAZE	15K	JA	1/16W	[D4]
R9332	MT-GLAZE	3.3K	JA	1/16W	[D4]
R9333	MT-GLAZE	3.3K	JA	1/16W	[D4]
R9334	MT-GLAZE	22K	JA	1/16W	[E4]
R9335	MT-GLAZE	22K	JA	1/16W	[E4]
R9340	MT-GLAZE	15K	JA	1/16W	[D4]
R9341	MT-GLAZE	2.7K	JA	1/16W	[E4]
R9342	MT-GLAZE	2.7K	JA	1/16W	[E4]
R9348	MT-GLAZE	2.2K	JA	1/16W	[E4]
R9364	MT-GLAZE	100K	JA	1/16W	[D4]
R9365	MT-GLAZE	1K	JA	1/16W	[D4]
R9370	MT-GLAZE	470	JA	1/16W	[D3]
R9373	MT-FILM	2.2K	DU	1/16W	[E4]
R9375	MT-GLAZE	10	JA	1/16W	[E4]
R9376	MT-FILM	10K	DU	1/16W	[E5]
R9377	MT-GLAZE	100K	JA	1/16W	[E4]
R9378	MT-GLAZE	56K	JA	1/16W	[E5]
R9379	MT-GLAZE	5.6K	JA	1/16W	[E5]
R9380	MT-GLAZE	2.7K	JA	1/16W	[E4]
R9385	MT-GLAZE	1K	JA	1/16W	[E3]
R9390	MT-GLAZE	100K	JA	1/16W	[D4]
R9393	MT-GLAZE	150K	JA	1/16W	[E5]
R9394	MT-GLAZE	560K	JA	1/16W	[E5]
R9395	MT-GLAZE	390K	JA	1/16W	[E5]
R9396	MT-GLAZE	100K	JA	1/16W	[E5]
R9398	MT-GLAZE	330K	JA	1/16W	[C4]
R9399	MT-GLAZE	47K	JA	1/16W	[E5]
R9402	MT-GLAZE	39K	JA	1/16W	[E5]
R9404	MT-GLAZE	4.7K	JA	1/16W	[C3]
R9405	MT-GLAZE	2.7K	JA	1/16W	[E4]
R9406	MT-GLAZE	4.7K	JA	1/16W	[E4]
R9408	MT-GLAZE	680K	JA	1/16W	[E3]
R9409	MT-GLAZE	560	JA	1/16W	[E4]
R9413	MT-GLAZE	100K	JA	1/16W	[E4]
R9414	MT-GLAZE	18K	JA	1/16W	[E4]
R9415	MT-GLAZE	150K	JA	1/16W	[E4]
R9416	MT-GLAZE	5.6K	JA	1/16W	[E3]
R9427	MT-GLAZE	100K	JA	1/16W	[E5]
R9428	MT-GLAZE	100K	JA	1/16W	[E4]
R9429	MT-GLAZE	10K	JA	1/16W	[E4]
R9430	MT-GLAZE	10K	JA	1/16W	[E4]
R9437	MT-GLAZE	2.7K	JA	1/16W	[E4]
R9438	MT-GLAZE	1.8K	JA	1/16W	[E5]
R9441	MT-GLAZE	1K	JA	1/16W	[D4]
R9442	MT-GLAZE	1K	JA	1/16W	[D4]
R9451	MT-GLAZE	3.9K	JA	1/16W	[C5]
R9452	MT-GLAZE	3.9K	JA	1/16W	[C5]
R9457	MT-GLAZE	47K	JA	1/16W	[C4]
R9463	MT-GLAZE	10K	JA	1/16W	[D4]
R9464	MT-GLAZE	100K	JA	1/16W	[C5]
R9465	MT-GLAZE	100K	JA	1/16W	[E4]
R9466	MT-GLAZE	100K	JA	1/16W	[E4]
R9467	MT-GLAZE	100K	JA	1/16W	[D4]
R9469	MT-GLAZE	1K	JA	1/16W	[E5]
R9470	MT-GLAZE	1K	JA	1/16W	[E5]
R9471	MT-GLAZE	10K	JA	1/16W	[C4]
R9482	MT-GLAZE	10K	JA	1/16W	[D4]
R9484	MT-GLAZE	10K	JA	1/16W	[D4]
RB902	R-NETWORK	10KX2		0.063W	[F1]
RB903	R-NETWORK	10KX4		0.063W	[F1]
RB904	R-NETWORK	1KX4		0.063W	[F1]
RB905	R-NETWORK	1KX2		0.063W	[F1]
TP901	TERMINAL,TESTPIN				[G5]
TP902	TERMINAL,TESTPIN				[F5]
TP903	TERMINAL,TESTPIN				[G4]
VR902	SVR	47K			[G4]
VR904	SVR	47K			[G4]
VR931	SVR	220K			[E5]
VR932	SVR	220K			[E5]

CA1/TC1 BOARD (SIDE A)

CN911

1	UNREG
2	GND
3	5V(M)
4	5V(S)
5	15V
6	-7V

TO PW1

CN932

1	Z.P REF
2	Z.P GND
3	Z.P 5V
4	ZOOM-
5	ZOOM+
6	HALL IN(-)
7	HALL OUT(+)
8	CONT-
9	CONT+
10	DRIVE-
11	DRIVE+
12	SENCS
13	FS 5V
14	CS
15	SK
16	DO
17	DI
18	FS GND
19	A
20	$\overline{\text{B}}$
21	$\overline{\text{A}}$
22	B
23	ZOOM+
24	ZOOM-

TO LENS

J9001

12	VSUB
13	ID
14	Ye 0
15	GND
16	Ye 1
17	NOT USED
18	IRIS.DET
19	GND
20	GND
21	CAMERA Y
22	CAMERA C

CN913

1	$\overline{\text{CAM CS}}$
2	$\overline{\text{CAM CS}}$
3	$\overline{\text{SCK}}$
4	SO
5	CAM ON
6	CAM C
7	C GND
8	CAM Y
9	Y GND
10	Y GND

TO CP1

CN931

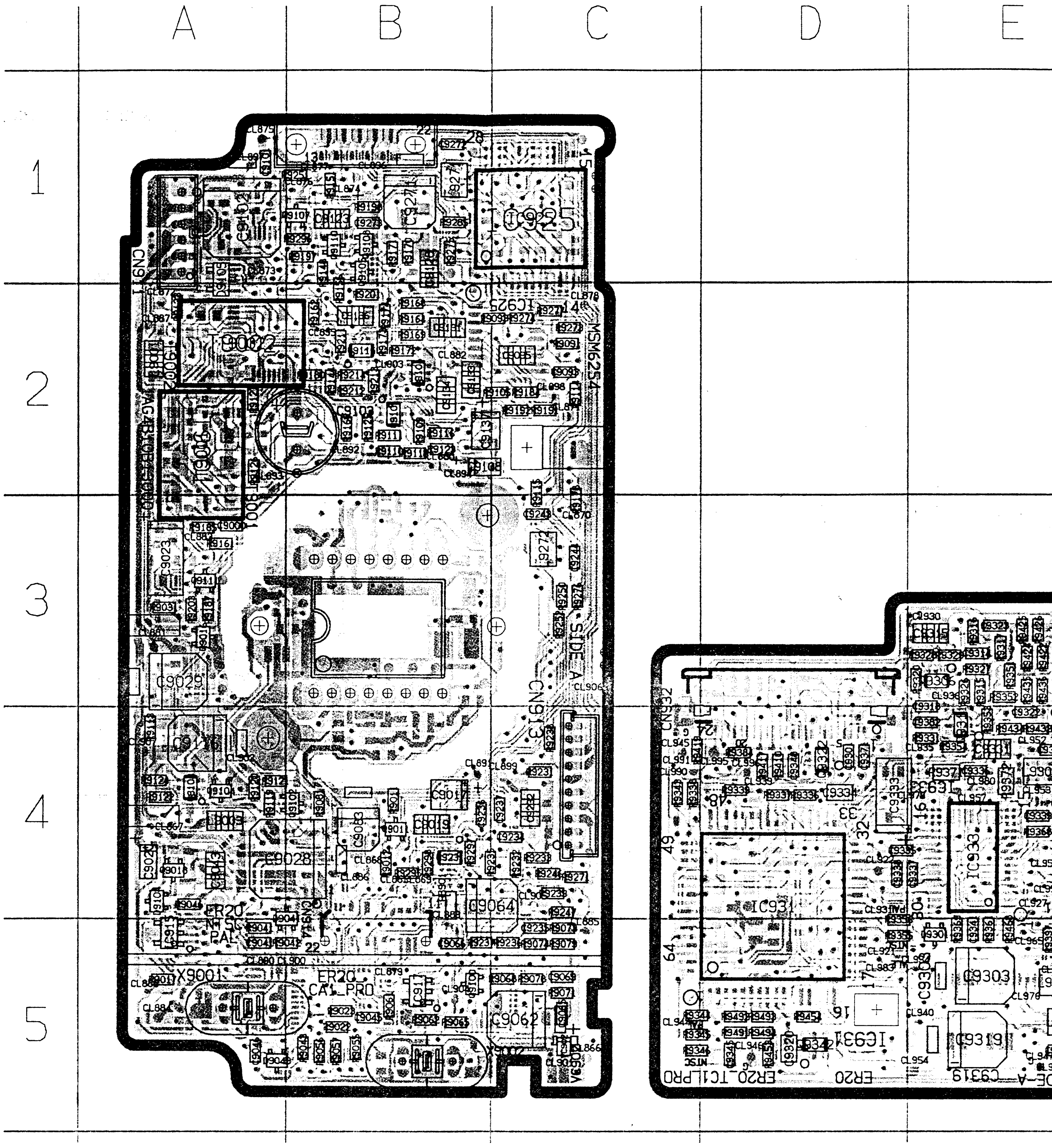
1	UNREG
2	GND
3	$\overline{\text{GAIN UP}}$
4	B GAIN
5	R GAIN
6	r
7	$\overline{\text{CAM ADJ.1}}$
8	$\overline{\text{CAM ADJ.2}}$
9	$\overline{\text{CAMERA CS}}$
10	$\overline{\text{SCK}}$
11	SO
12	4FSC
13	$\overline{\text{C.BLK}}$
14	5V(S)
15	IRIS GAIN
16	B-Y
17	R-Y
18	VREF
19	AGC REF
20	IRIS Y
21	GND
22	ES

TO CA1

CN914

1	UNREG
2	GND
3	$\overline{\text{GAIN UP}}$
4	B GAIN
5	R GAIN
6	r
7	$\overline{\text{CAM ADJ.1}}$
8	$\overline{\text{CAM ADJ.2}}$
9	$\overline{\text{CAMERA CS}}$
10	$\overline{\text{SCK}}$
11	SO
12	4FSC
13	$\overline{\text{C.BLK}}$
14	5V(S)
15	IRIS GAIN
16	B-Y
17	R-Y
18	VREF
19	AGC REF
20	IRIS Y
21	GND
22	ES

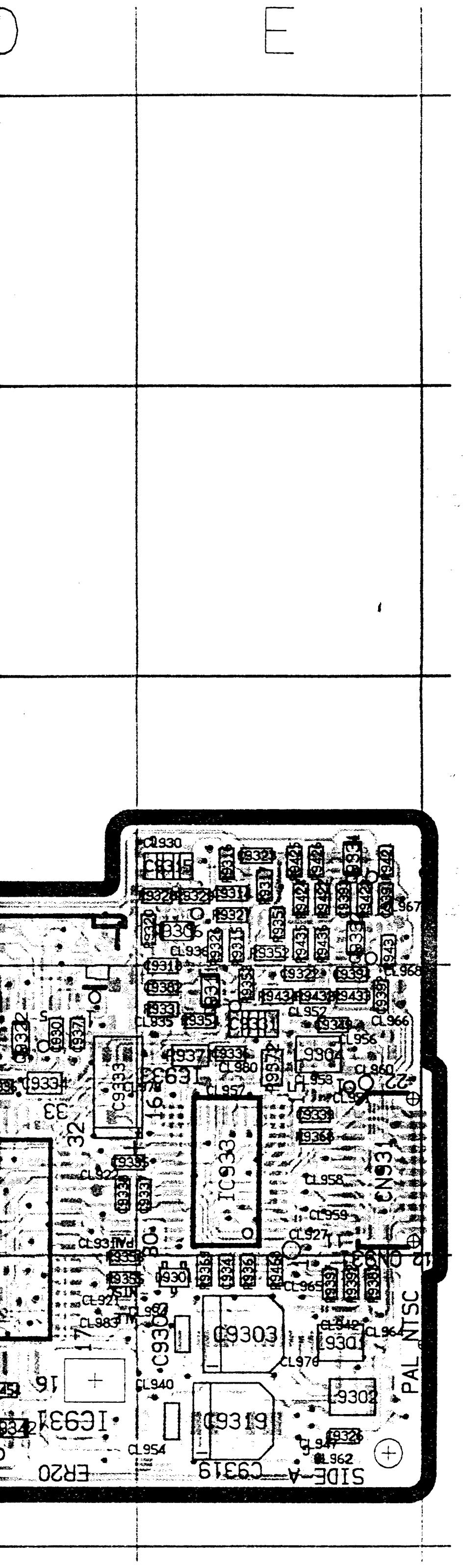
TO TC1

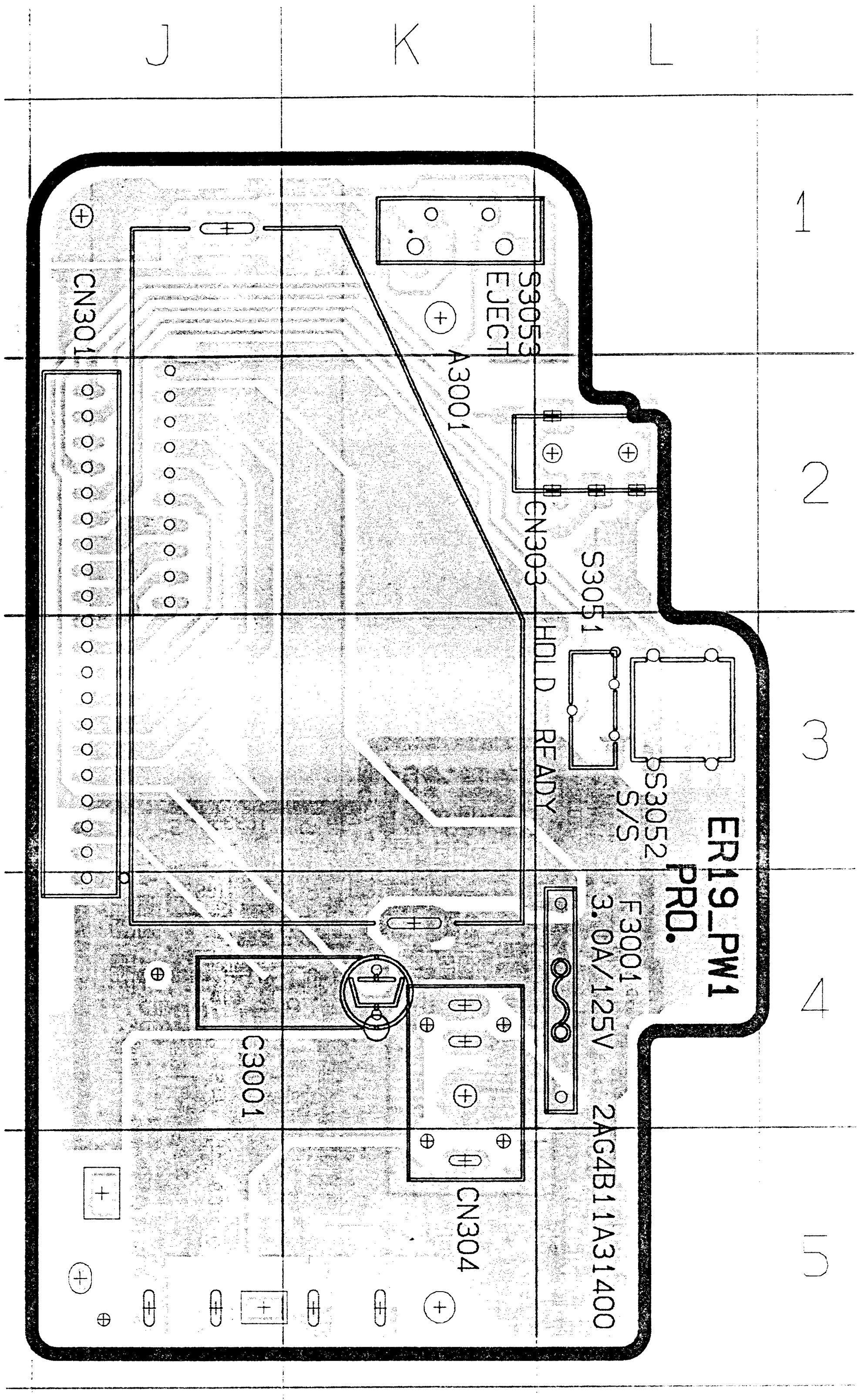


LEADLESS COMPONENT PARTS LOCATION GUIDE
CA1/TC1 BOARD (SIDE A)

C9000	CERAMIC	0.1U	Z	25V	[A3]
C9017	TA-SOLID	1U	M	35V	[B4]
C9019	CERAMIC	1U	Z	25V	[B4]
C9028	ELECT	33U	M	25V	[B4]
C9029	ELECT	22U	M	16V	[A3]
C9041	CERAMIC	0.1U	Z	25V	[A5]
C9043	CERAMIC	1U	Z	16V	[A4]
C9045	CERAMIC	0.1U	Z	25V	[B5]
C9046	CERAMIC	15P	J	50V	[A5]
C9064	ELECT	22U	M	6.3V	[C4]
C9065	CERAMIC	0.01U	K	25V	[C5]
C9083	ELECT	10U	M	16V	[B4]
C9093	CERAMIC	0.01U	K	25V	[C2]
C9095	CERAMIC	1U	Z	16V	[C2]
C9101	CERAMIC	0.1U	Z	25V	[A1]
C9102	ELECT	100U	M	6.3V	[A1]
C9108	TA-SOLID	6.8U	M	4V	[B2]
C9116	ELECT	47U	M	6.3V	[A4]
C9123	CERAMIC	1U	Z	16V	[B1]
C9128	CERAMIC	1U	Z	16V	[B1]
C9131	CERAMIC	1U	Z	16V	[B2]
C9133	CERAMIC	1U	Z	16V	[B2]
C9134	CERAMIC	1U	Z	16V	[B2]
C9136	CERAMIC	1U	Z	16V	[B2]
C9232	CERAMIC	1U	Z	16V	[C4]
C9234	CERAMIC	1000P	K	50V	[C4]
C9235	CERAMIC	22P	J	50V	[C5]
C9236	CERAMIC	0.1U	Z	25V	[B4]
C9237	CERAMIC	0.1U	Z	25V	[C4]
C9243	CERAMIC	0.01U	K	25V	[C3]
C9244	CERAMIC	100P	J	50V	[C3]
C9272	CERAMIC	0.1U	Z	25V	[B1]
C9273	CERAMIC	0.1U	Z	25V	[B1]
C9301	CERAMIC	0.1U	Z	25V	[D4]
C9303	ELECT	47U	M	6.3V	[E5]
C9314	CERAMIC	0.1U	Z	25V	[E3]
C9315	CERAMIC	1U	Z	16V	[E3]
C9318	CERAMIC	0.01U	K	25V	[E3]
C9319	ELECT	47U	M	6.3V	[E5]
C9320	CERAMIC	0.1U	Z	25V	[D5]
C9322	CERAMIC	0.1U	Z	25V	[E4]
C9323	CERAMIC	0.1U	Z	25V	[E3]
C9326	CERAMIC	0.01U	K	25V	[E5]
C9331	CERAMIC	1U	Z	16V	[E4]
C9333	TA-SOLID	15U	M	16V	[D4]
C9334	CERAMIC	0.1U	Z	25V	[D4]
C9335	CERAMIC	3300P	K	50V	[D4]
C9336	CERAMIC	0.01U	K	25V	[E4]
C9337	CERAMIC	0.01U	K	25V	[E4]
C9338	CERAMIC	0.01U	K	25V	[D4]
C9339	CERAMIC	0.01U	K	25V	[E4]
C9341	CERAMIC	0.01U	K	25V	[E5]
C9345	CERAMIC	0.1U	Z	25V	[D5]
C9348	CERAMIC	0.1U	Z	25V	[D4]
C9371	CERAMIC	0.1U	Z	25V	[D4]
C9382	CERAMIC	3300P	K	50V	[E4]
C9391	CERAMIC	0.1U	Z	25V	[E3]
C9392	CERAMIC	0.1U	Z	25V	[E4]
C9393	CERAMIC	0.1U	Z	25V	[E3]
C9394	CERAMIC	0.1U	Z	25V	[E4]
D9041	DIODE MA141K-TX				[B5]
D9043	DIODE MA141K-TX				[A5]
D9104	DIODE MA141WK-TX				[A4]
D9105	DIODE MA721-TX				[A1]
D9301	DIODE MA141K-TX				[E5]
IC915	IC SC14S69FEL				[A5]
IC917	IC SC14S69FEL				[B5]
IC925	IC MSM6524GS-VKR2				[C1]
IC931	IC LC97000A-376N				[D4]
IC933	IC MPC17A85VM-EL				[E4]
L9001	INDUCTOR,600 OHM				[A2]
L9003	INDUCTOR,600 OHM				[A4]
L9272	COIL,INDUCTOR	12U	J		[C3]
L9301	COIL,INDUCTOR	10U	K		[E5]
L9302	COIL,INDUCTOR	22U	K		[E5]
L9304	COIL,INDUCTOR	56U	K		[E4]
Q9100	TR 2SC4399-5-TL				[B5]
Q9101	TR XP4601-TW				[B2]
Q9102	TR DTA144EU-T106				[B4]
Q9103	TR XP4401-TW				[A4]
Q9104	TR 2SC4211-6-TL				[A4]
Q9105	TR 2SB1218A-R-TX				[B1]
Q9106	TR XP4501-TW				[B2]
Q9108	TR 2SB1218A-R-TX				[B1]
Q9110	TR 2SC4211-6-TL				[B1]
Q9306	TR XP4501-TW				[E3]
Q9311	TR XP4601-TW				[E4]
Q9322	TR XP4501-TW				[D4]
Q9331	TR XP4501-TW				[E3]
Q9332	TR XP4501-TW				[E3]
Q9342	TR XP4601-TW				[D5]
R9022	MT-GLAZE	33	JA	1/16W	[B5]
R9023	MT-GLAZE	33	JA	1/16W	[B5]
R9041	MT-GLAZE	22K	JA	1/16W	[A5]
R9042	MT-GLAZE	18K	JA	1/16W	[B5]
R9043	MT-GLAZE	820	JA	1/16W	[B5]
R9046	MT-GLAZE	2.2	JA	1/16W	[A4]
R9055	MT-GLAZE	33	JA	1/16W	[B5]
R9056	MT-GLAZE	120	JA	1/16W	[B5]
R9057	MT-GLAZE	120	JA	1/16W	[B5]
R9061	MT-GLAZE	2.2	JA	1/16W	[B5]
R9062	MT-GLAZE	10K	JA	1/16W	[B5]
R9065	MT-GLAZE	0.000	ZA	1/16W	[B5]
R9068	MT-GLAZE	100	JA	1/16W	[C5]
R9071	MT-GLAZE	10K	JA	1/16W	[C5]
R9073	MT-GLAZE	220	JA	1/16W	[C5]
R9074	MT-GLAZE	10K	JA	1/16W	[C5]
R9078	MT-GLAZE	3.9K	JA	1/16W	[C5]
R9079	MT-GLAZE	0.000	ZA	1/16W	[C5]
R9081	MT-GLAZE	10	JA	1/16W	[B4]
R9091	MT-GLAZE	10	JA	1/16W	[C2]
R9093	MT-GLAZE	1K	JA	1/16W	[C2]
R9109	MT-GLAZE	10K	JA	1/16W	[B2]
R9111	MT-GLAZE	0.000	ZA	1/16W	[B2]
R9114	MT-GLAZE	27K	JA	1/16W	[C2]
R9115	MT-GLAZE	6.8K	JA	1/16W	[C2]
R9116	MT-GLAZE	6.8K	JA	1/16W	[B2]
R9118	MT-GLAZE	47K	JA	1/16W	[B2]
R9119	MT-GLAZE	22K	JA	1/16W	[A4]
R9120	MT-GLAZE	0.000	ZA	1/16W	[A4]
R9121	MT-GLAZE	0.000	ZA	1/16W	[A4]
R9122	MT-GLAZE	22K	JA	1/16W	[A4]
R9123	MT-GLAZE	1K	JA	1/16W	[B2]
R9124	MT-GLAZE	10K	JA	1/16W	[A4]
R9125	MT-GLAZE	10K	JA	1/16W	[B2]
R9126	MT-GLAZE	3.9K	JA	1/16W	[A2]
R9127	MT-GLAZE	1K	JA	1/16W	[A2]
R9133	MT-GLAZE	1K	JA	1/16W	[A2]
R9144	MT-GLAZE	4.7K	JA	1/16W	[B2]
R9148	MT-GLAZE	0.000	ZA	1/16W	[B1]
R9156	MT-FILM	10K	DU	1/16W	[B2]
R9162	MT-GLAZE	68K	JA	1/16W	[B2]
R9169	MT-GLAZE	0.000	ZA	1/16W	[B2]
R9172	MT-GLAZE	0.000	ZA	1/16W	[B2]
R9173	MT-GLAZE	5.6K	JA	1/16W	[B2]
R9174	MT-GLAZE	5.6K	JA	1/16W	[B2]
R9178	MT-GLAZE	47K	JA	1/16W	[C3]
R9185	MT-GLAZE	18K	JA	1/16W	[A3]
R9187	MT-GLAZE	33K	JA	1/16W	[A3]
R9191	MT-GLAZE	10K	JA	1/16W	[C2]
R9192	MT-GLAZE	10K	JA	1/16W	[C2]
R9197	MT-GLAZE	12K	JA	1/16W	[B1]
R9201	MT-GLAZE	3.9K	JA	1/16W	[B2]
R9231	MT-GLAZE	10	JA	1/16W	[C4]
R9232	MT-GLAZE	33K	JA	1/16W	[C4]
R9235	MT-GLAZE	3.3K	JA	1/16W	[C4]
R9236	MT-GLAZE	1.2K	JA	1/16W	[C5]
R9237	MT-GLAZE	6.8K	JA	1/16W	[B5]
R9238	MT-GLAZE	8.2K	JA	1/16W	[C4]
R9239	MT-GLAZE	2.2K	JA	1/16W	[C4]
R9247	MT-GLAZE	39K	JA	1/16W	[C4]
R9250	MT-GLAZE	560	JA	1/16W	[C3]
R9251	MT-GLAZE	220	JA	1/16W	[B1]
R9252	MT-GLAZE	1K	JA	1/16W	[C3]
R9271	MT-GLAZE	33K	JA	1/16W	[C4]
R9273	MT-GLAZE	33K	JA	1/16W	[C2]
R9274	MT-GLAZE	22K	JA	1/16W	[C2]
R9275	MT-GLAZE	22K	JA	1/16W	[B1]
R9276	MT-GLAZE	27K	JA	1/16W	[C3]
R9277	MT-GLAZE	27K	JA	1/16W	[C2]
R9285	MT-GLAZE	3.3	JA	1/16W	[B1]
R9295	MT-GLAZE	10K	JA	1/16W	[B4]
R9296	MT-GLAZE	0.000	ZA	1/16W	[B1]
R9297	MT-GLAZE	0.000	ZA	1/16W	[B4]
R9298	MT-GLAZE	0.000	ZA	1/16W	[B4]
R9315	MT-GLAZE	2.7K	JA	1/16W	[E3]
R9316	MT-GLAZE	1K	JA	1/16W	[E3]
R9317	MT-GLAZE	1K	JA	1/16W	[E3]
R9320	MT-GLAZE	1.5K	JA	1/16W	[E3]
R9326	MT-GLAZE	2.2K	JA	1/16W	[E3]
R9327	MT-GLAZE	1K	JA	1/16W	[E3]
R9328	MT-GLAZE	5.6K	JA	1/16W	[E3]
R9329	MT-GLAZE	470	JA	1/16W	[E3]
R9331	MT-GLAZE	1.5K	JA	1/16W	[E4]
R9336	MT-GLAZE	22K	JA	1/16W	[D4]
R9337	MT-GLAZE	18K	JA	1/16W	[D4]
R9338	MT-GLAZE	22K	JA	1/16W	[C4]
R9339	MT-GLAZE	18K	JA	1/16W	[D4]
R9343	MT-GLAZE	4.7	JA	1/1	
R9344	MT-GLAZE	220K	JA	1/1	
R9345	MT-GLAZE	0.000	ZA	1/1	
R9351	MT-GLAZE	5.6K	JA	1/1	
R9352	MT-GLAZE	6.8K	JA	1/1	
R9353	MT-GLAZE	1K	JA	1/1	
R9354	MT-GLAZE	1K	JA	1/1	
R9356	MT-GLAZE	0.000	ZA	1/1	
R9361	MT-GLAZE	6.8K	JA	1/1	
R9368	MT-GLAZE	0.000	ZA	1/1	
R9369	MT-GLAZE	0.000	ZA	1/1	
R9371	MT-GLAZE	3.9	JA	1/1	
R9372	MT-GLAZE	3.9	JA	1/1	
R9383	MT-GLAZE	1K	JA	1/1	
R9384	MT-GLAZE	1K	JA	1/1	
R9392	MT-GLAZE	33K	JA	1/1	
R9397	MT-GLAZE	100K	JA	1/1	
R9417	MT-GLAZE	15K	JA	1/1	
R9419	MT-GLAZE	10K	JA	1/1	
R9421	MT-GLAZE	1.8K	JA	1/1	

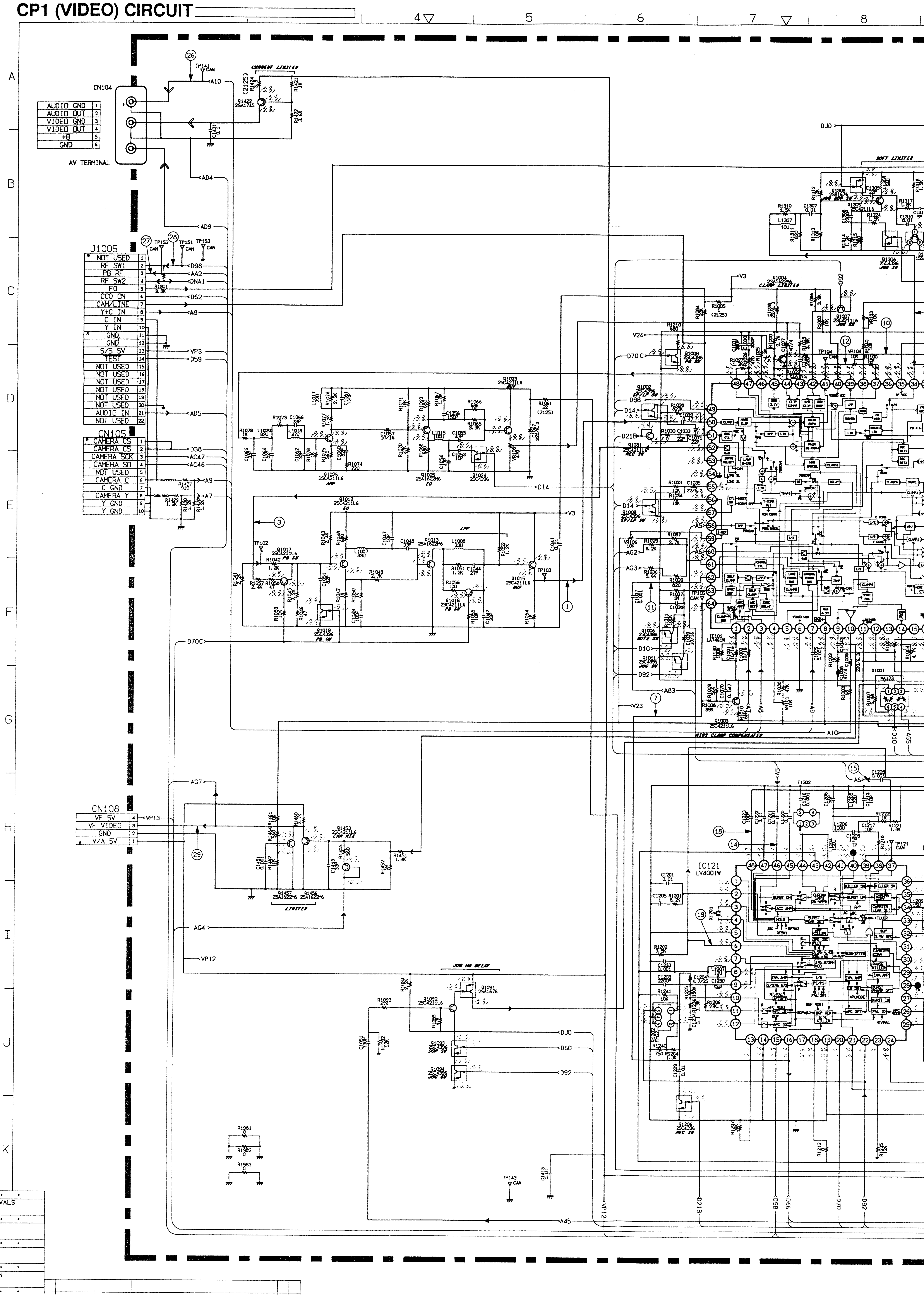
PW1 BOARD (SIDE A)


E
IC933
IC931
C9303
C9319
CN93
PAL NTSC
SIDE-A
ER20


J
K
L
1
2
3
4
5
CN301
S3053
EJECT
A3001
CN303
S3051
HOLD READY
S3052
S/S
ER19_PW1
PRO.
F3001
3.0A/125V
C3001
CN304
2AG4B11A31400

R9343	MT-GLAZE	4.7	JA	1/16W	[C4]
R9344	MT-GLAZE	220K	JA	1/16W	[C5]
R9345	MT-GLAZE	0.000	ZA	1/16W	[C5]
R9351	MT-GLAZE	5.6K	JA	1/16W	[E3]
R9352	MT-GLAZE	6.8K	JA	1/16W	[E3]
R9353	MT-GLAZE	1K	JA	1/16W	[E4]
R9354	MT-GLAZE	1K	JA	1/16W	[E4]
R9356	MT-GLAZE	0.000	ZA	1/16W	[D5]
R9361	MT-GLAZE	6.8K	JA	1/16W	[E5]
R9368	MT-GLAZE	0.000	ZA	1/16W	[E4]
R9369	MT-GLAZE	0.000	ZA	1/16W	[E5]
R9371	MT-GLAZE	3.9	JA	1/10W	[E4]
R9372	MT-GLAZE	3.9	JA	1/10W	[E4]
R9383	MT-GLAZE	1K	JA	1/16W	[E5]
R9384	MT-GLAZE	1K	JA	1/16W	[D4]
R9392	MT-GLAZE	33K	JA	1/16W	[E5]
R9397	MT-GLAZE	100K	JA	1/16W	[E5]
R9417	MT-GLAZE	15K	JA	1/16W	[D4]
R9419	MT-GLAZE	10K	JA	1/16W	[C4]
R9421	MT-GLAZE	1.8K	JA	1/16W	[E3]
R9422	MT-GLAZE	3.3K	JA	1/16W	[E3]
R9423	MT-GLAZE	470	JA	1/16W	[E3]
R9424	MT-GLAZE	560	JA	1/16W	[E3]
R9425	MT-GLAZE	560	JA	1/16W	[E3]
R9426	MT-GLAZE	2.2K	JA	1/16W	[E3]
R9431	MT-GLAZE	3.9K	JA	1/16W	[E3]
R9432	MT-GLAZE	3.3K	JA	1/16W	[E4]
R9433	MT-GLAZE	470	JA	1/16W	[E4]
R9434	MT-GLAZE	560	JA	1/16W	[E4]
R9435	MT-GLAZE	560	JA	1/16W	[E3]
R9436	MT-GLAZE	2.2K	JA	1/16W	[E3]
R9453	MT-GLAZE	3.9K	JA	1/16W	[D5]
R9454	MT-GLAZE	3.9K	JA	1/16W	[D5]
R9468	MT-GLAZE	100K	JA	1/16W	[E5]
R9491	MT-GLAZE	0.000	ZA	1/16W	[D5]
R9492	MT-GLAZE	0.000	ZA	1/16W	[D5]
T9001	FILTER,LP 4MHZ				[A2]
T9002	FILTER,LP 4MHZ				[A2]
VC902	VA MA366(E)-SAN1-TX				[C5]

CP1 (VIDEO) CIRCUIT

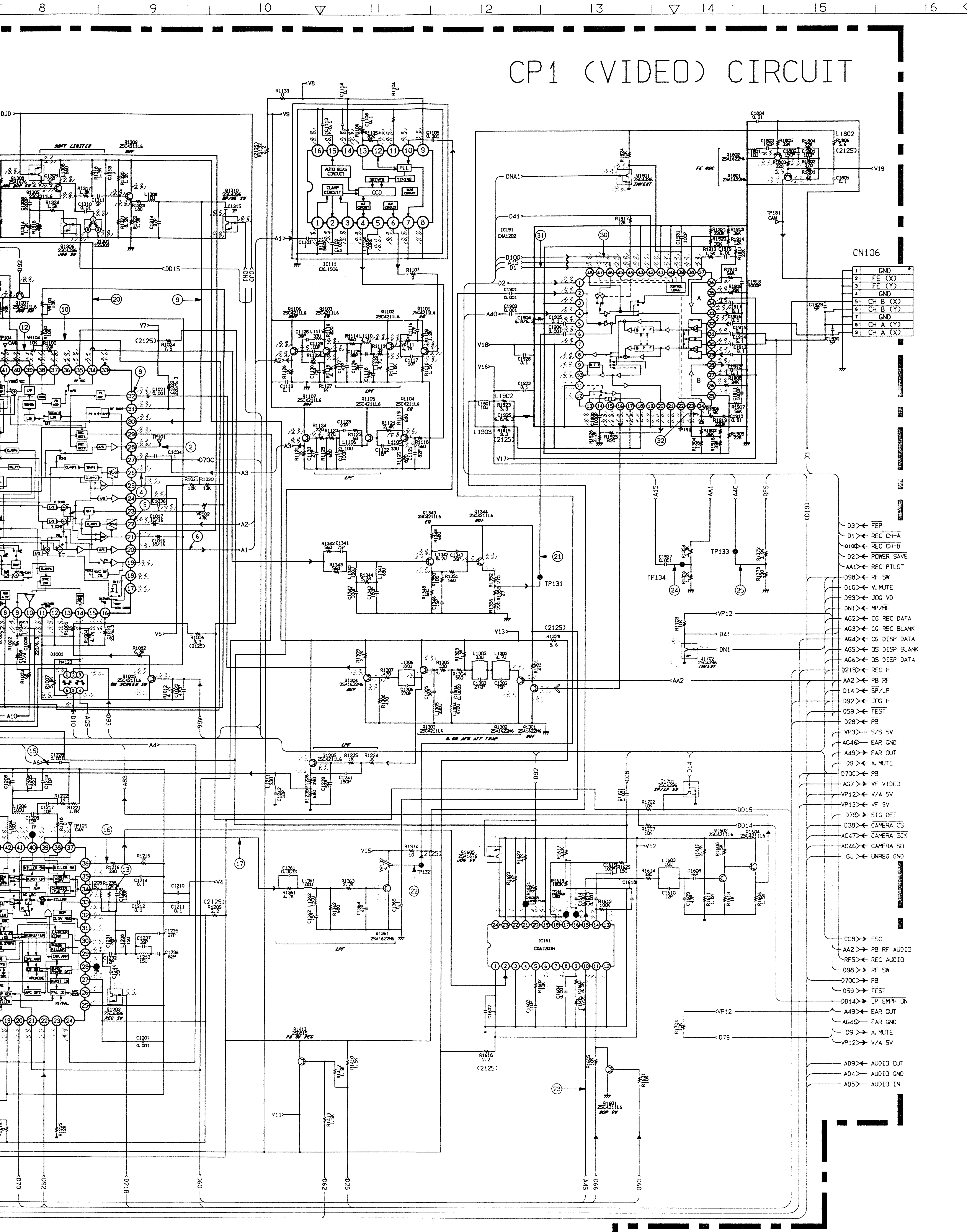


4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
K
CN104
AUDIO GND 1
AUDIO OUT 2
VIDEO GND 3
VIDEO OUT 4
+B 5
GND 6
AV TERMINAL
CURRENT LIMITER
Q1422 2SA1745
TP141 CAN
A10
AD4
AD9
J1005
NOT USED 1
RF SW1 2
PB RF 3
RF SW2 4
FO 5
CCD ON 6
CAM/LINE 7
Y+C IN 8
C IN 9
Y IN 10
GND 11
GND 12
S/S 5V 13
TEST 14
NOT USED 15
NOT USED 16
NOT USED 17
NOT USED 18
NOT USED 19
NOT USED 20
AUDIO IN 21
NOT USED 22
TP152 CAN
TP151 CAN
TP153 CAN
D98
AA2
DNA1
D62
A8
VP3
D59
AD5
CN105
CAMERA CS 1
CAMERA CS 2
CAMERA SCK 3
CAMERA SO 4
NOT USED 5
CAMERA C 6
C GND 7
CAMERA Y 8
Y GND 9
Y GND 10
D38
AC47
AC46
A9
A7
Q1023 2SC4211L6 BUF
Q1022 2SC4211L6 AMP
Q1025 2SA1622M6 EQ
Q1024 2SC4396
D14
Q1012 2SC4211L6 EQ
V3
LPF
TP102
Q1017 2SC4211L6 PB SW
Q1013 2SA1622M6
Q1018 2SC4211L6 PB SW
Q1015 2SC4211L6 BUF
TP103
Q1019 2SC4396 PB SW
D70C
CN108
VF 5V 4
VF VIDEO 3
GND 2
V/A 5V 1
VP13
AG7
AG4
VP12
Q1453 2SC4211L6 CHR MIX
Q1457 2SA1622M6
Q1456 2SA1622M6
LIMITER
JOG HD DELAY
Q1091 2SA1676
Q1092 2SC4211L6
Q1093 2SC4396 DOP SW
Q1094 2SC4396 JOG SW
DJD
D60
D92
R1981
R1982
R1983
TP143 CAN
A45
VP12
D218
D98
D66
D70
D92
SOFT LIMITER
Q1306 2SC4396 JOG SW
Q1305 2SC4211L6
CLAMP LIMITER
Q1004
Q1007 2SC4211L6 JOG SW
V24
D70 C
Q1008 2SC4396 PB SW
Q1002 2SC4396 SP/LP SW
D98
D14
D218
Q1031 2SC4211L6 REC SW
Q1009 2SC4396 SP/LP SW
VR106
AG2
AG3
A5
A6
TP104 CAN
VR104
TP105 CAN
Q1006 2SC4396 MUTE SW
D10
Q1011 2SC4396 JOG SW
D92
A83
V23
Q1033 2SC4211L6
BIAS CLAMP COMPENSATOR
IC101 LA7461M
D1001 MA123
A10
D10
AG5
T1202
IC121 LV4001W
TP121 CAN
A5
A6
Q1206 2SC4396 REC SW

APPROVALS
CHKD
CHKD
DESIGN
DRAWN
TRACE

MK	DATE	REV NO	REVISION	SUB	SEC

CP1 (VIDEO) CIRCUIT


8
9
10
11
12
13
14
15
16
IC111
CXL1506
AUTO BIAS CIRCUIT
CLAMP CIRCUIT
DRIVER
TIMING
PLL
CCD
IC191
CXA1202
CONTROL LOGIC
IC161
CXA1203N
Q1309 2SC4211L6 BUF
SOFT LIMITER
Q1306 2SC4211L6 JOG SW
Q1301 2SA1622M6 BUF
Q1302 2SA1622M6
Q1303 2SC4211L6
Q1304 2SA1622M6 BUF
6.5M AFM ATF TRAP
Q1343 2SC4211L6 EQ
Q1344 2SC4211L6 BUF
Q1101 2SC4211L6
Q1102 2SC4211L6
Q1103 2SC4211L6 EQ
Q1106 2SC4211L6 BUF
Q1104 2SC4211L6
Q1105 2SC4211L6
Q1107 2SC4211L6 EQ
LPF
EQ
Q1005 2SC4211L6 ON SCREEN SW
Q1203 2SC4396 REC SW
Q1205 2SC4211L6
Q1413 2SD1015 PB OR REC
Q1601 2SC4211L6 BOP SW
Q1605 2SA1576 JOG SW
Q1701 2SC4396 SP/LP SW
Q1702 2SC4396 INVERT
Q1901 2SC4396 INVERT
Q1801 2SA1622M6
Q1802 2SA1622M6
FE OSC
L1802
TP101
TP121
TP131
TP132
TP133
TP134
TP181
TP191
CN106
1 GND
2 FE (X)
3 FE (Y)
4 GND
5 CH B (X)
6 CH B (Y)
7 GND
8 CH A (Y)
9 CH A (X)
V8
V9
V4
V6
V7
V11
V12
V13
V15
V16
V17
V18
V19
DD15
DD14
DNA1
D41
D100
A15
D1
D2
A40
A1
A2
A3
A4
A5
A6
A10
AA2
D70C
(2125)
D3> FEP
D1> REC CH-A
D100> REC CH-B
D2> POWER SAVE
AA1> REC PILOT
D98> RF SW
D10> V.MUTE
D93> JOG VD
DN1> MP/ME
AG2> CG REC DATA
AG3> CG REC BLANK
AG4> CG DISP DATA
AG5> OS DISP BLANK
AG6> OS DISP DATA
D218> REC H
AA2> PB RF
D14> SP/LP
D92> JOG H
D59> TEST
D28> PB
VP3> S/S 5V
AG46> EAR GND
A49> EAR OUT
D9> A.MUTE
D70C> PB
AG7> VF VIDEO
VP12> V/A 5V
VP13> VF 5V
D79> SIG DET
D38> CAMERA CS
AC47> CAMERA SCK
AC46> CAMERA SO
GU> UNREG GND
CC8> FSC
AA2> PB RF AUDIO
RF5> REC AUDIO
D98> RF SW
D70C> PB
D59> TEST
DD14> LP EMPH ON
A49> EAR OUT
AG46> EAR GND
D9> A.MUTE
VP12> V/A 5V
AD9> AUDIO OUT
AD4> AUDIO GND
AD5> AUDIO IN
D70
D92
D218
D60
D62
D28
A45
D66
D60
D19

BASIC MODEL

COMMON MODEL

CIRCUIT NAME

PCB NAME

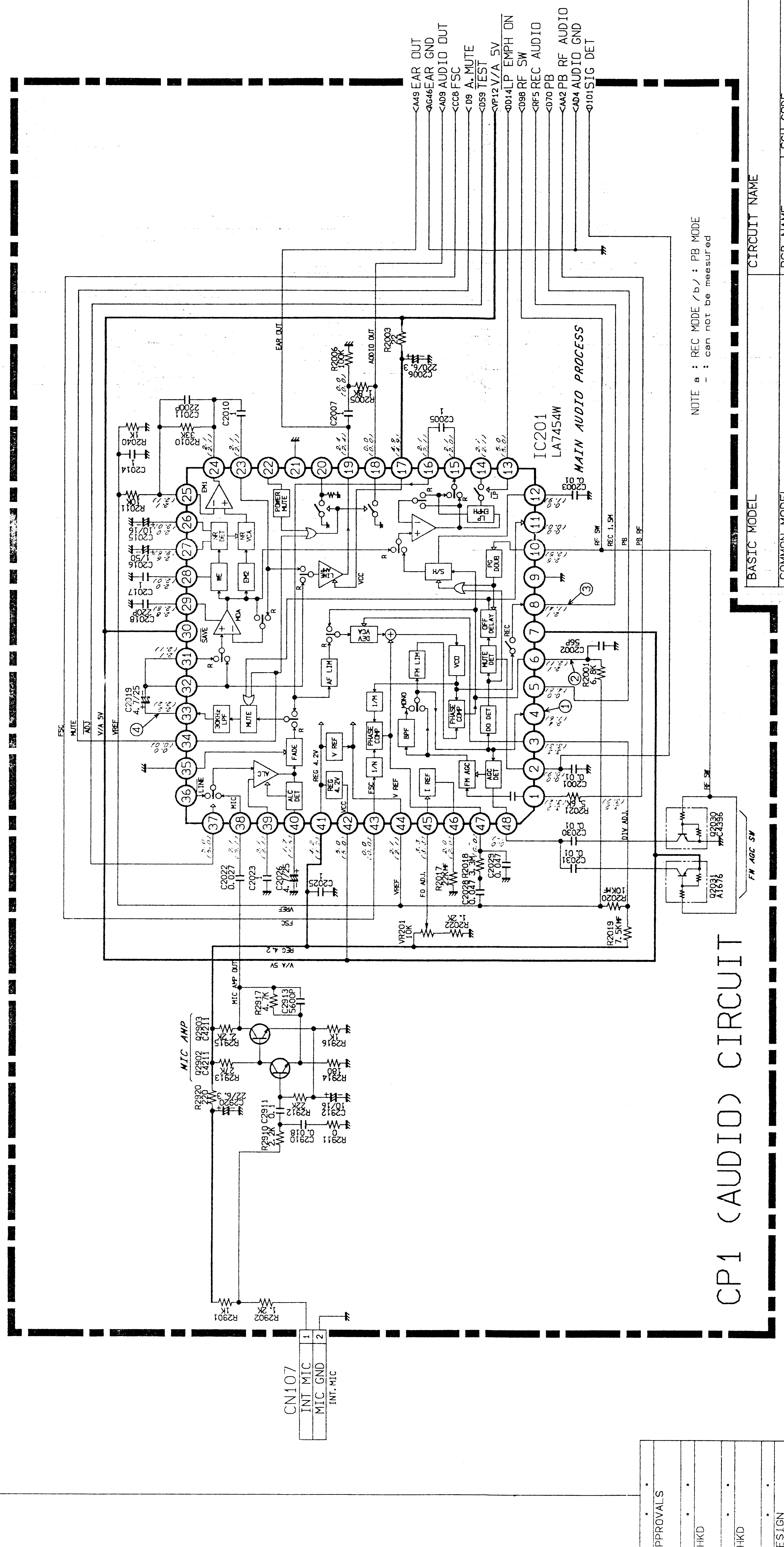
SCH CODE

FINISH DATE

DRAW ID

PLOT DATE
94.3.

CP1 (AUDIO) CIRCUIT


CP1 (AUDIO) CIRCUIT
IC201
LA7454W
MAIN AUDIO PROCESS
A49 EAR OUT
AG46 EAR GND
AD9 AUDIO OUT
CC8 FSC
D9 A.MUTE
D59 TEST
VP12 V/A 5V
D014 LP EMPH ON
D98 RF SW
RF5 REC AUDIO
D70 PB
AA2 PB RF AUDIO
AD4 AUDIO GND
D101 SIG DET
MIC AMP
Q2902 C4211
Q2903 C4211
FM AGC SW
Q2030 C4396
Q2031 A1676
CN107
INT MIC
MIC GND
INT.MIC
R2901 1K
R2902 1.2K
VR201 10K
R2019 7.5K
R2020 10K
R2001 6.8K
C2002 56P
R2003 22
C2006 220/6.3
R2006 100K
R2005 1.8K
C2011 2200P
R2010 33K
R2040 1K
C2019 4.7/25
C2026 4.7/25
C2022 0.027
C2029 0.047
C2028 0.047
R2018 3.3M
R2017 22K
R2917 4.7K
C2913 5600P
FSC
MUTE
ADJ
V/A 5V
VREF
REG 4.2
EAR OUT
AUDIO OUT
MIC AMP OUT
RF SW
REC 1.5M
PB RF

NOTE a : REC MODE (b) : PB MODE
- : can not be measured

CIRCUIT NAME

PCB NAME

FINISH DATE

DRAW ID

SCH CODE

PLOT DATE 94.3.1

BASIC MODEL

COMMON MODEL

REVISION

SUBSEC

MK | DATE | REV NO

APPROVALS

CHKD

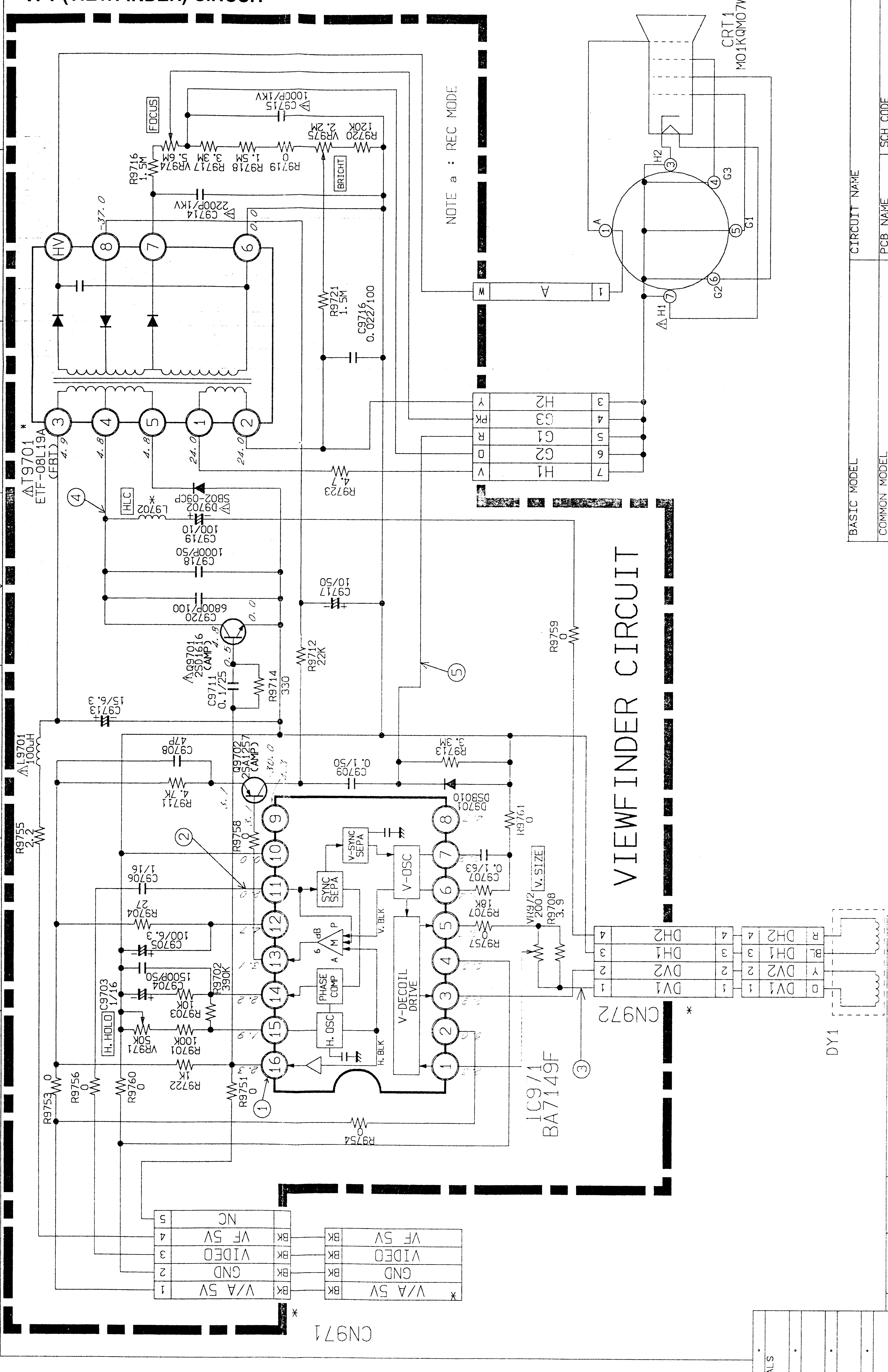
CHKD

DESIGN

DRAWN

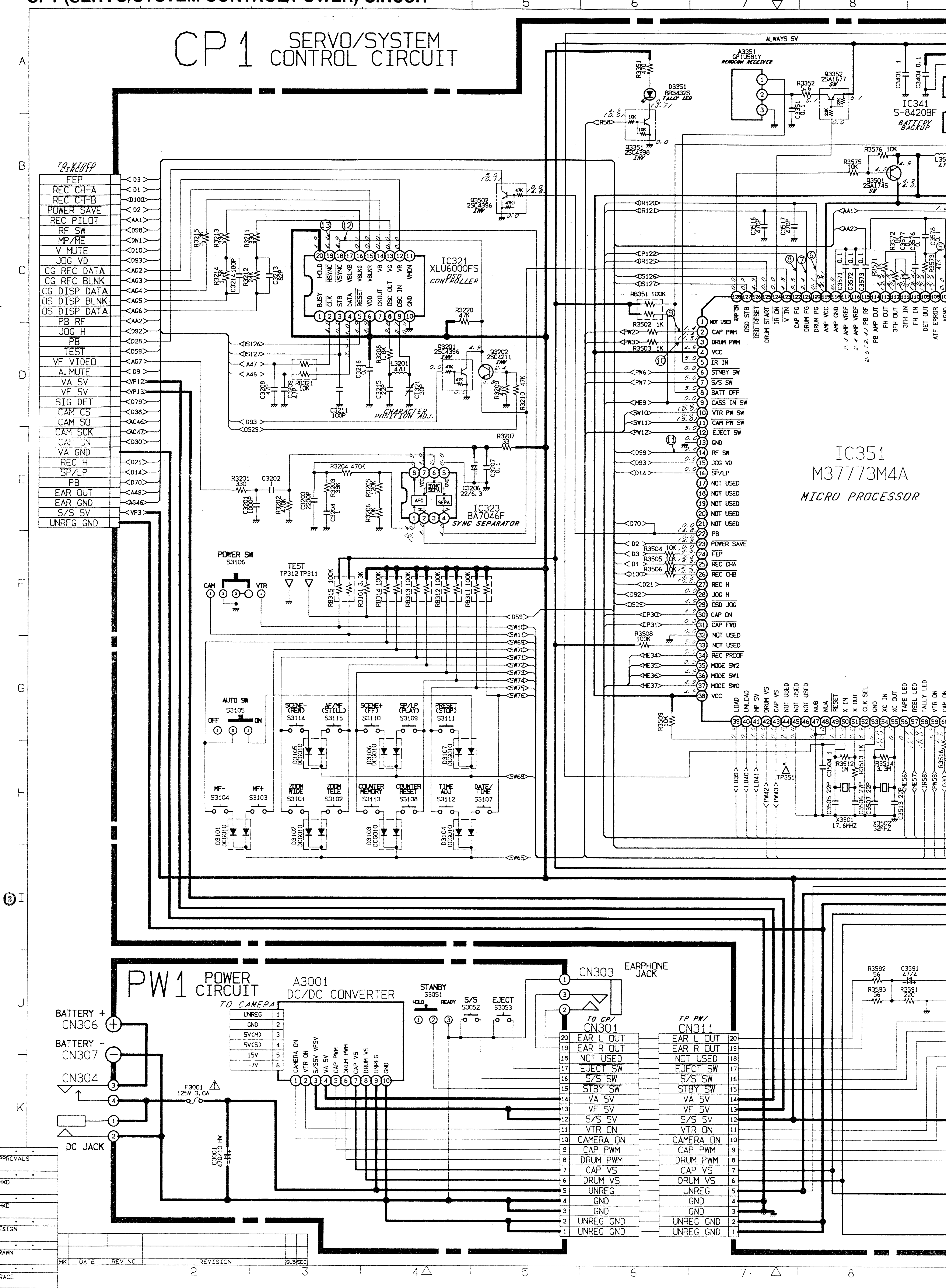
TRACE

VF1 (VIEWFINDER) CIRCUIT


VIEWFINDER CIRCUIT
NOTE a : REC MODE
CRT1
M01KQM07WB
T9701
ETF-08L19A
(FBT)
HV
FOCUS
BRIGHT
R9716 1.5M
VR974 5.6M
R9717 3.3M
R9718 1.5M
R9719 0
VR975 2.2M
R9720 120K
C9715 1000P/1KV
C9714 2200P/1KV
R9721 1.5M
C9716 0.022/100
R9723 4.7
H2
G3
G1
G2
H1
A
HLC
L9702
D9702 SB02-09CP
C9719 100/10
C9718 1000P/50
C9720 6800P/100
Q97016 2SD1616 (AMP)
C9717 10/50
R9712 22K
C9711 0.1/25
R9714 330
C9713 15/6.3
L9701 100uH
R9759 0
C9708 47P
R9711 4.7K
Q9702 2SA1257 (AMP)
C9709 0.1/50
R9713 3.3M
D9701 DS8010
R9761 0
R9755 2.2
R9758 0
V-SYNC SEPA
SYNC SEPA
V-OSC
PHASE COMP
H.OSC
V-DECOIL DRIVE
V.BLK
H.BLK
C9707 0.1/63
V.SIZE
R9707 18K
VR972 200
R9708 3.9
R9757 0
C9706 1/16
R9704 27
C9705 100/6.3
C9704 1500P/50
R9702 390K
C9703 1/16
R9703 10K
H.HOLD
VR971 50K
R9701 100K
R9722 1K
R9753 0
R9756 0
R9760 0
R9751 0
R9754 0
IC971
BA7149F
CN972
DH2
DH1
DV2
DV1
DY1
CN971
NC
VF 5V
VIDEO
GND
V/A 5V
BK
ZONE
A
B
C
D
E
F
8
7
6
5
4
3
2
1
①
②
③
④
⑤

CIRCUIT NAME
PCB NAME
SCH CODE
FINISH DATE
DRAW ID
PLOT DATE
94.3.1
BASIC MODEL
COMMON MODEL
REVISION
SUBSEC
MK
DATE
REV NO
APPROVALS
CHKD
CHKD
DESIGN
DRAWN
TRACE

CP1 (SERVO/SYSTEM CONTROL/POWER) CIRCUIT


CP1 SERVO/SYSTEM CONTROL CIRCUIT
PW1 POWER CIRCUIT
TO VIDEO CIRCUIT
FEP
REC CH-A
REC CH-B
POWER SAVE
REC PILOT
RF SW
MP/ME
V MUTE
JOG VD
CG REC DATA
CG REC BLNK
CG DISP DATA
OS DISP BLNK
OS DISP DATA
PB RF
JOG H
PB
TEST
VF VIDEO
A.MUTE
VA 5V
VF 5V
SIG DET
CAM CS
CAM SO
CAM SCK
CAM ON
VA GND
REC H
SP/LP
PB
EAR OUT
EAR GND
S/S 5V
UNREG GND
IC321 XLU6000FS OSD CONTROLLER
CHARACTER POSITION ADJ.
IC323 BA7046F SYNC SEPARATOR
Q3502 2SC4396 INV
Q3201 2SC4396 INV
Q3202 2SC4211 INV
ALWAYS 5V
A3351 GP1U581Y REMOCON RECEIVER
D3351 BR3432S TALLY LED
Q3351 2SC4398 INV
Q3352 2SA1677 SW
Q3501 2SA1745 SW
IC341 S-8420BF BATTERY BACKUP
IC351 M37773M4A MICRO PROCESSOR
NOT USED
CAP PWM
DRUM PWM
VCC
IR IN
STNBY SW
S/S SW
BATT OFF
CASS IN SW
VTR PW SW
CAM PW SW
EJECT SW
GND
RF SW
JOG VD
SP/LP
PB
POWER SAVE
FEP
REC CHA
REC CHB
REC H
JOG H
OSD JOG
CAP ON
CAP FWD
REC PROOF
MODE SW2
MODE SW1
MODE SW0
X3501 17.6MHZ
X3502 32KHZ
TP351
POWER SW S3106
CAM
VTR
TEST TP312 TP311
AUTO SW S3105
OFF
ON
SCENE- (REW) S3114
AF/MF (STILL) S3115
SCENE+ (FF) S3110
SP/LP (PLAY) S3109
PRESET (STOP) S3111
MF- S3104
MF+ S3103
ZOOM WIDE S3101
ZOOM TELE S3102
COUNTER MEMORY S3113
COUNTER RESET S3108
TIME ADJ S3112
DATE/TIME S3107
D3101 DCG010
D3102 DCG010
D3103 DCG010
D3104 DCG010
D3105 DCG010
D3106 DCG010
D3107 DCG010
BATTERY + CN306
BATTERY - CN307
CN304
DC JACK
F3001 125V 3.0A
C3001 470/10 HW
A3001 DC/DC CONVERTER
TO CAMERA
UNREG
GND
5V(M)
5V(S)
15V
-7V
STANBY S3051
HOLD
READY
S/S S3052
EJECT S3053
CN303 EARPHONE JACK
TO CP/ CN301
TP PW/ CN311
EAR L OUT
EAR R OUT
NOT USED
EJECT SW
S/S SW
STBY SW
VA 5V
VF 5V
S/S 5V
VTR ON
CAMERA ON
CAP PWM
DRUM PWM
CAP VS
DRUM VS
UNREG
GND
UNREG GND
APPROVALS
CHKD
DESIGN
DRAWN
TRACE
MK
DATE
REV NO
REVISION
SUBSEC
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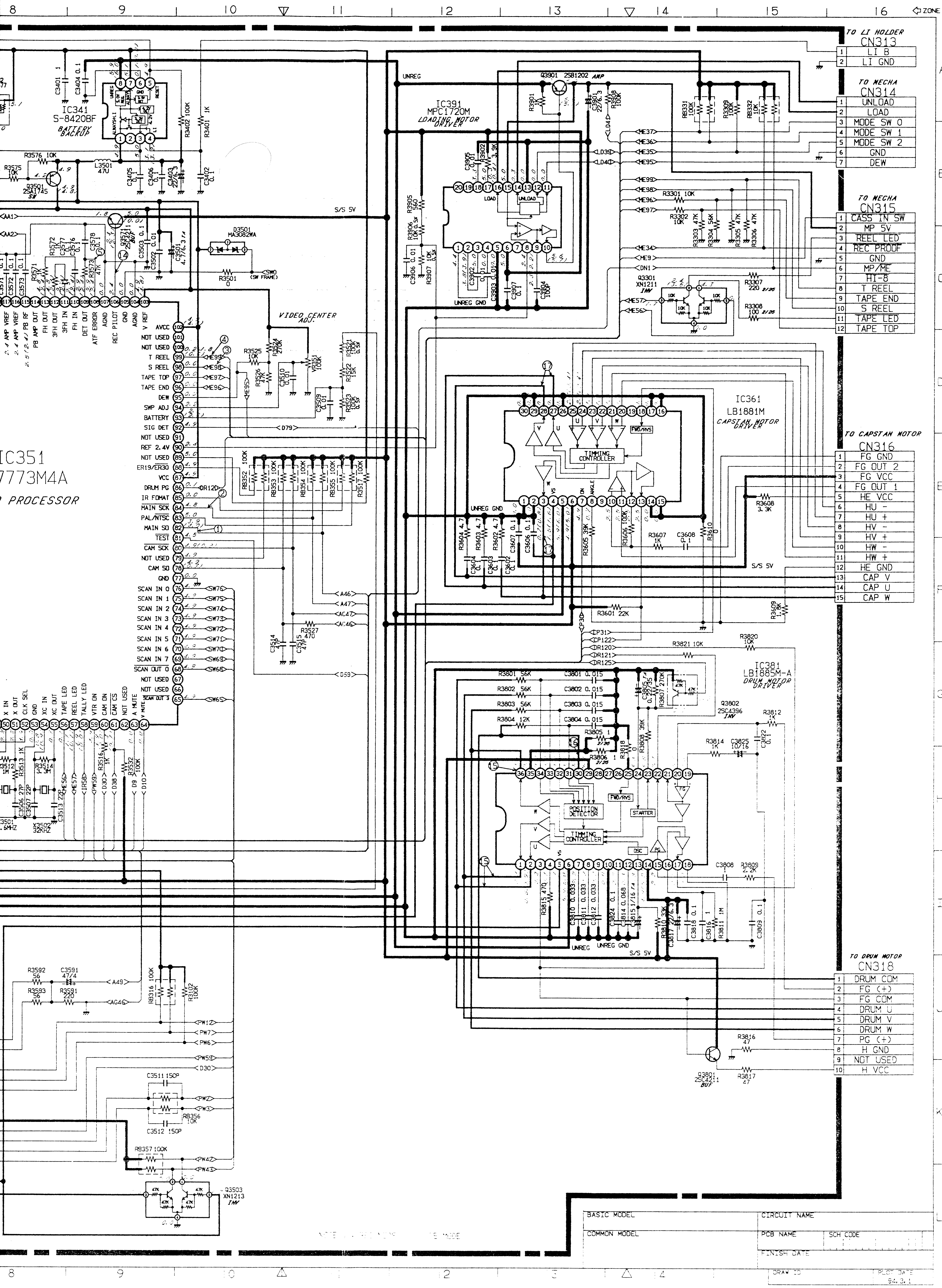
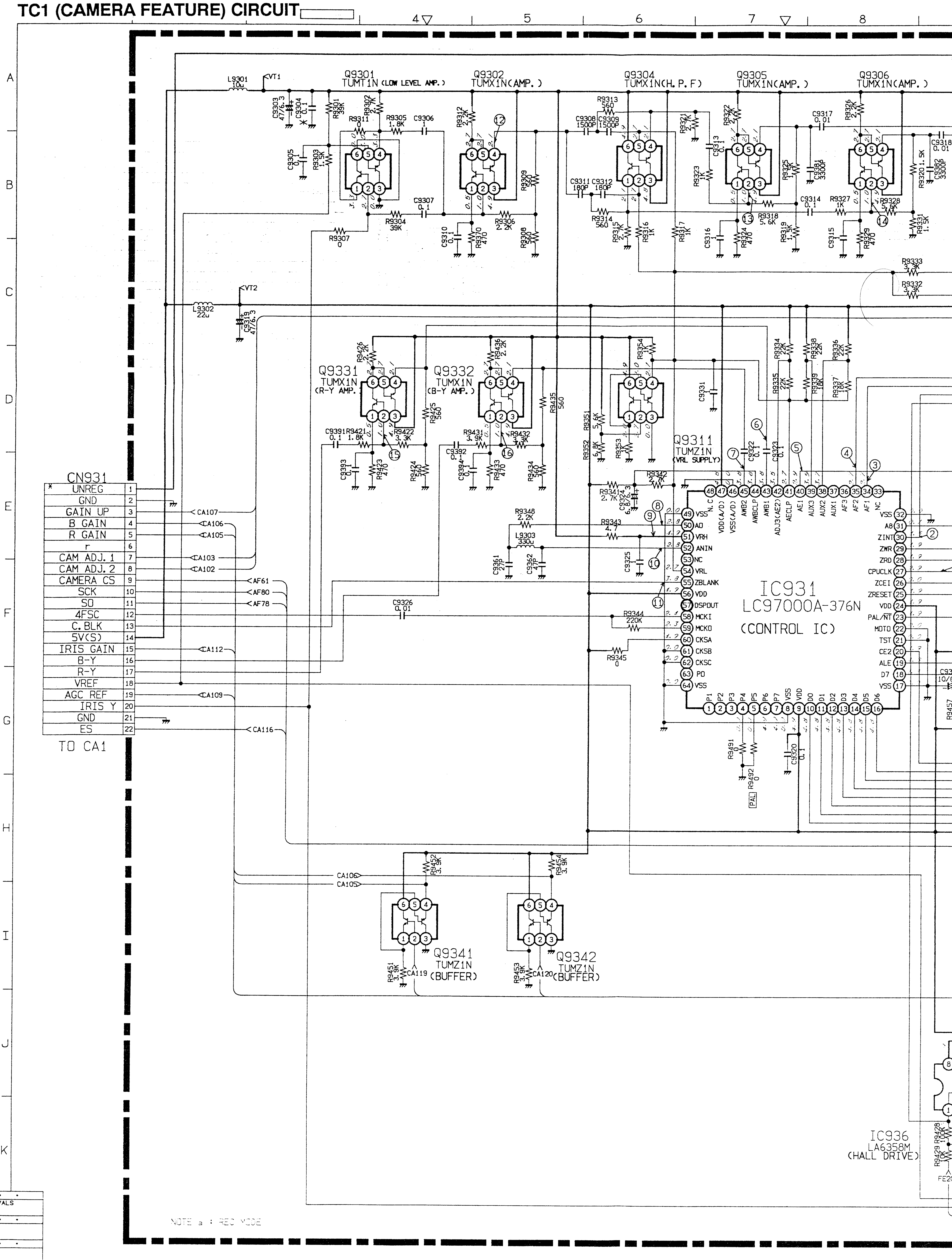
I
J
K



IC341
S-8420BF
BATTERY BACKUP
IC391
MPC1720M
LOADING MOTOR DRIVER
Q3901 2SB1202 AMP
Q3501 2SA1745 SW
D3501 MA3082WA
VIDEO CENTER ADJ.
IC351
7773M4A
PROCESSOR
IC361
LB1881M
CAPSTAN MOTOR DRIVER
TIMMING CONTROLLER
FWD/RVS
IC381
LB1885M-A
DRUM MOTOR DRIVER
POSITION DETECTOR
STARTER
Q3802 2SC4396 INV
Q3301 XN1211 INV
Q3503 XN1213 INV
Q3801 2SC4211 BUF
UNREG
UNREG GND
S/S 5V
TO LI HOLDER
CN313
1 LI B
2 LI GND
TO MECHA
CN314
1 UNLOAD
2 LOAD
3 MODE SW 0
4 MODE SW 1
5 MODE SW 2
6 GND
7 DEW
TO MECHA
CN315
1 CASS IN SW
2 MP 5V
3 REEL LED
4 REC PROOF
5 GND
6 MP/ME
7 HI-8
8 T REEL
9 TAPE END
10 S REEL
11 TAPE LED
12 TAPE TOP
TO CAPSTAN MOTOR
CN316
1 FG GND
2 FG OUT 2
3 FG VCC
4 FG OUT 1
5 HE VCC
6 HU -
7 HU +
8 HV -
9 HV +
10 HW -
11 HW +
12 HE GND
13 CAP V
14 CAP U
15 CAP W
TO DRUM MOTOR
CN318
1 DRUM COM
2 FG (+)
3 FG COM
4 DRUM U
5 DRUM V
6 DRUM W
7 PG (+)
8 H GND
9 NOT USED
10 H VCC
AVCC
NOT USED
T REEL
S REEL
TAPE TOP
TAPE END
DEW
SWP ADJ
BATTERY
SIG DET
REF 2.4V
ER19/ER30
VCC
DRUM PG
IR FOMAT
MAIN SCK
PAL/NTSC
MAIN SO
TEST
CAM SCK
CAM SO
GND
SCAN IN 0
SCAN IN 1
SCAN IN 2
SCAN IN 3
SCAN IN 4
SCAN IN 5
SCAN IN 6
SCAN IN 7
SCAN OUT 0
SCAN OUT 3
X3501
X3502 32KHZ
BASIC MODEL
CIRCUIT NAME
COMMON MODEL
PCB NAME
SCH CODE
FINISH DATE
DRAW ID
PLOT DATE
94.3.1
ZONE

TC1 (CAMERA FEATURE) CIRCUIT

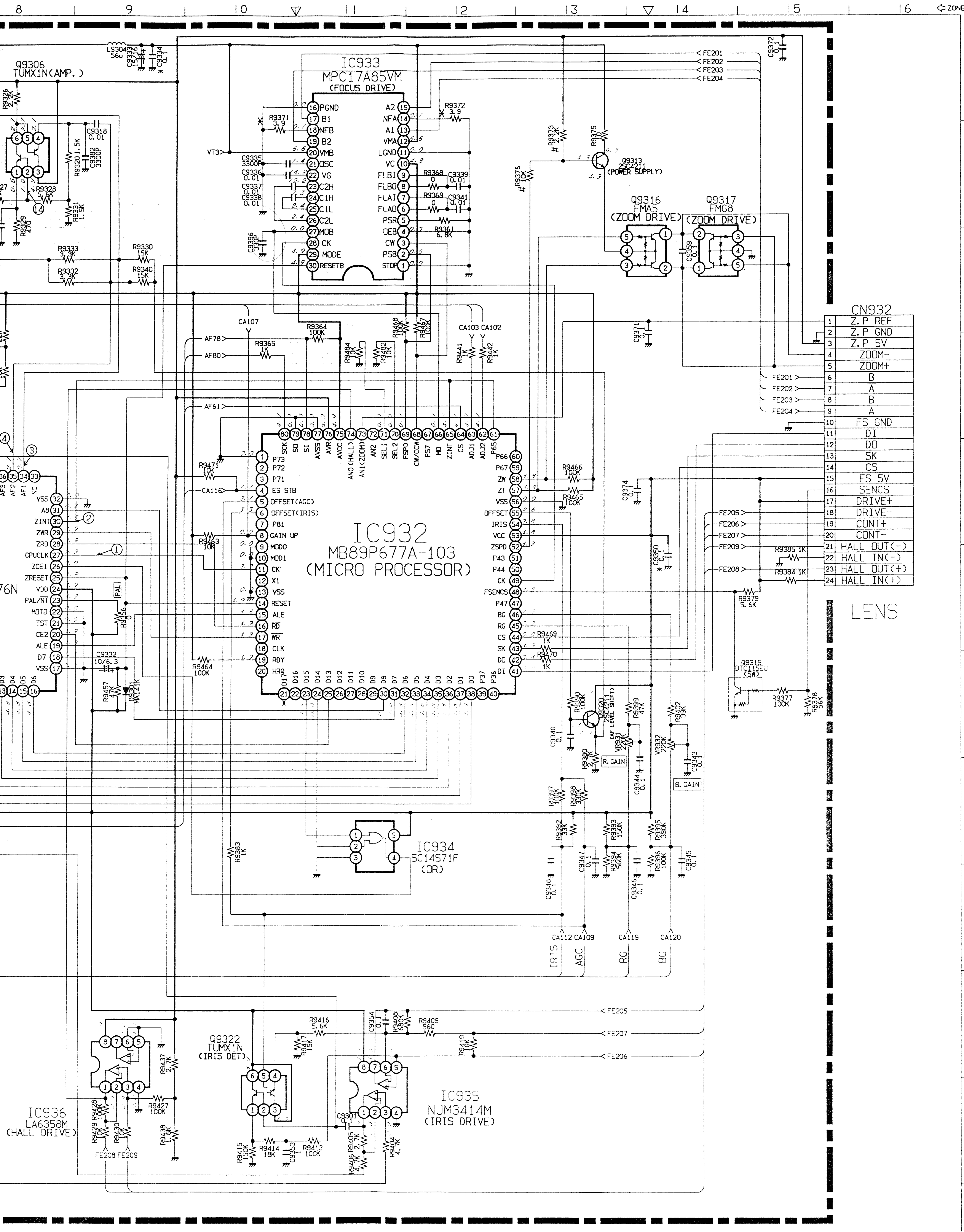

4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
K
L9301 10u
VT1
Q9301 TUMT1N (LOW LEVEL AMP.)
Q9302 TUMX1N(AMP.)
Q9304 TUMX1N(H.P.F)
Q9305 TUMX1N(AMP.)
Q9306 TUMX1N(AMP.)
C9303 47/6.3
C9304 0.1
R9301 39K
R9311 0
R9302 2.7K
R9305 1.8K
C9306 1
R9312 2.2K
C9305 0.1
R9303 1.5K
C9307 0.1
R9304 39K
R9307 0
C9310 0.1
R9370 470
R9306 2.2K
R9309 560
R9308 560
R9313 560
C9308 1500P
C9309 1500P
C9311 180P
C9312 180P
R9314 560
R9315 2.7K
R9316 1K
R9317 1K
R9321 2.7K
C9313 0.1
R9323 1K
R9322 2.7K
C9317 0.01
R9325 1.5K
C9381 3300P
C9316 1
R9324 470
R9318 5.6K
R9319 1.5K
C9314 0.1
R9327 1K
R9326 2.2K
C9318 0.01
R9320 1.5K
C9382 3300P
R9328 5.6K
C9315 1
R9329 470
R9331 1.5K
R9333 3.3K
R9332 3.3K
VT2
L9302 22u
C9319 47/6.3
Q9331 TUMX1N (R-Y AMP.)
Q9332 TUMX1N (B-Y AMP.)
R9426 2.2K
R9436 2.2K
R9425 560
R9435 560
C9391 0.1
R9421 1.8K
R9422 3.3K
C9393 0.1
R9423 470
R9424 560
C9392 0.1
R9431 3.9K
R9432 3.3K
C9394 0.1
R9433 470
R9434 560
R9354 1K
R9351 5.6K
R9352 6.8K
R9353 3.9K
Q9311 TUMZ1N (VRL SUPPLY)
C9331
R9334 22K
R9338 22K
R9336 22K
R9335 22K
R9339 18K
R9337 18K
C9322 0.1
C9323 0.1
R9342 2.7K
R9341 2.7K
C9324 6.8/6.3
R9348 2.2K
R9343 4.7
L9303 330u
C9325
C9361 27P
C9362 47P
C9326 0.01
R9344 220K
R9345 0
IC931 LC97000A-376N (CONTROL IC)
N.C
VDD(A/D)
VSS(A/D)
AWB2
AWBCLP
AWB1
ADJ3(AE2)
AECLP
AE1
AUX3
AUX2
AUX1
AF3
AF2
AF1
NC
VSS
AD
VRH
ANIN
NC
VRL
ZBLANK
VDD
DSPOUT
MCKI
MCKO
CKSA
CKSB
CKSC
PO
VSS
A8
ZINT
ZWR
ZRD
CPUCLK
ZCEI
ZRESET
VDD
PAL/NT
MOTO
TST
CE2
ALE
D7
VSS
P1
P2
P3
P4
P5
P6
P7
VSS
VDD
D0
D1
D2
D3
D4
D5
D6
R9491 0
R9492 0
PAL
C9320 0.1
R9457
CN931
UNREG
GND
GAIN UP
B GAIN
R GAIN
r
CAM ADJ.1
CAM ADJ.2
CAMERA CS
SCK
SO
4FSC
C.BLK
5V(S)
IRIS GAIN
B-Y
R-Y
VREF
AGC REF
IRIS Y
GND
ES
TO CA1
CA107
CA106
CA105
CA103
CA102
AF61
AF80
AF78
CA112
CA109
CA116
R9452 3.9K
R9454 3.9K
Q9341 TUMZ1N (BUFFER)
Q9342 TUMZ1N (BUFFER)
R9451 3.9K
CA119
R9453 3.9K
CA120
IC936 LA6358M (HALL DRIVE)
R9428 100K
R9429 10K
NOTE a : REC MODE

TC1 (CAMERA FEATURE) CIRCUIT

MK	DATE	REV NO	REVISION	SUB	SEC

APPROVALS
CHKD
CHKD
DESIGN
DRAWN
TRACE

2 3 4 5 6 7 8

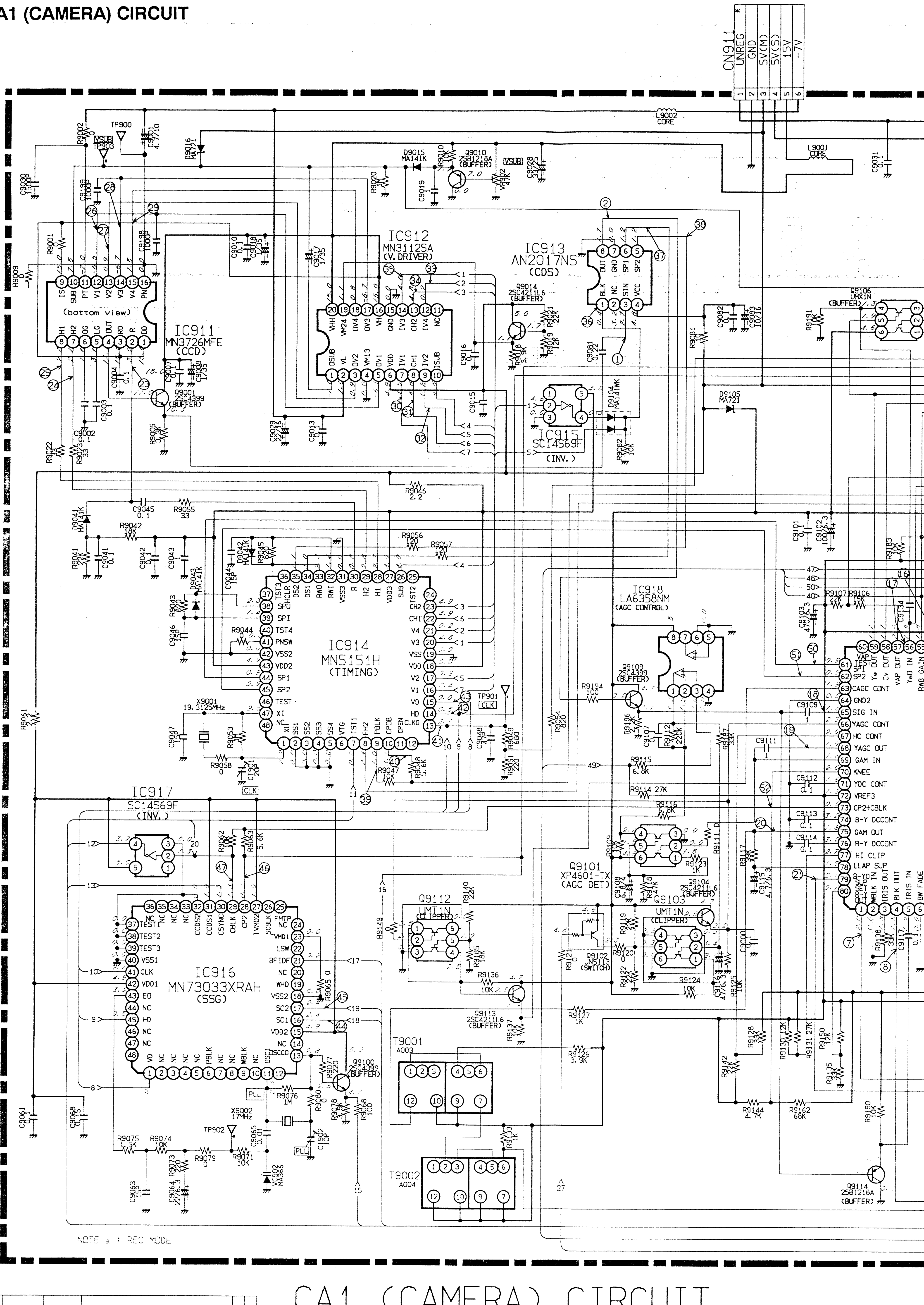

8
9
10
11
12
13
14
15
16
ZONE
IC933
MPC17A85VM
(FOCUS DRIVE)
PGND
B1
NFB
B2
VMB
OSC
VG
C2H
C1H
C1L
C2L
MOB
CK
MODE
RESETB
A2
NFA
A1
VMA
LGND
VC
FLBI
FLBO
FLAI
FLAO
PSR
OEB
CW
PS8
STOP
Q9306
TUMX1N(AMP.)
L93043 56μ
C9333 15/4
C9334 0.1
R9326 2.2K
C9318 0.01
R9320 1.5K
C9382 3300P
R9328 5.6K
R9329 470
R9331 1.5K
R9333 3.3K
R9332 3.3K
R9330 15K
R9340 15K
R9371 3.9
R9372 3.9
VT3
C9335 3300P
C9336 0.01
C9337 0.01
C9338 0.01
C9396 330P
R9368 0
C9339 0.01
R9369 0
C9341 0.01
R9361 6.8K
FE201
FE202
FE203
FE204
C9372 0.1
R9373 2.2K
R9375 10
R9376 10K
Q9313
2SC4211
(POWER SUPPLY)
Q9316
FMA5
(ZOOM DRIVE)
Q9317
FMG8
(ZOOM DRIVE)
C9359 0.1
CN932
1 Z.P REF
2 Z.P GND
3 Z.P 5V
4 ZOOM-
5 ZOOM+
6 B
7 A
8 B
9 A
10 FS GND
11 DI
12 DO
13 SK
14 CS
15 FS 5V
16 SENCS
17 DRIVE+
18 DRIVE-
19 CONT+
20 CONT-
21 HALL OUT(-)
22 HALL IN(-)
23 HALL OUT(+)
24 HALL IN(+)
LENS
C9371 0.1
CA107
R9364 100K
AF78
AF80
R9365 1K
R9484 10K
R9482 10K
R9468 100K
R9467 100K
CA103 CA102
R9441 1K
R9442 1K
AF61
IC932
MB89P677A-103
(MICRO PROCESSOR)
SCK
SO
SI
AVSS
AVR
AVCC
AN0(HALL)
AN1(ZOOM)
AN2
SEL1
SEL2
FSPD
CW/CCW
P57
MO
ZINT
CS
ADJ1
ADJ2
P65
P73
P72
P71
ES STB
OFFSET(AGC)
OFFSET(IRIS)
P81
GAIN UP
MOD0
MOD1
CK
X1
VSS
RESET
ALE
RD
WR
CLK
RDY
HRQ
P66
P67
ZW
ZT
VSS
OFFSET
IRIS
VCC
ZSPD
P43
P44
CK
FSENCS
P47
BG
RG
CS
SK
DO
DI
D17
D16
D15
D14
D13
D12
D11
D10
D9
D8
D7
D6
D5
D4
D3
D2
D1
D0
P37
P36
R9471 10K
CA116
R9463 10K
R9464 100K
R9466 100K
R9465 100K
C9374 0.1
C9350 0.1
R9469 1K
R9470 1K
FE205
FE206
FE207
FE209
FE208
R9385 1K
R9384 1K
R9379 5.6K
Q9315
DTC115EU
(SW)
R9377 100K
R9378 56K
AF3
AF2
AF1
NC
VSS
A8
ZINT
ZWR
ZRO
CPUCLK
ZCEI
ZRESET
VDD
PAL/NT
MOTO
TST
CE2
ALE
D7
VSS
D3
D4
D5
D6
76N
PAL
R9356
C9332 10/6.3
R9457 47K
D9301 MA141K
R9390 100K
Q9320 2SC4211 (AF LEVEL SHIFT)
R9399 47K
C9340 0.1
R9380 2.2K
VR9331 220K
R. GAIN
R9402 33K
VR9332 220K
C9343 0.1
B. GAIN
C9344 0.1
R9397 100K
R9398 330K
R9382 33K
R9393 150K
R9395 390K
IC934
SC14S71F
(OR)
R9383 1K
C9347 0.1
R9394 560K
C9346 0.1
R9396 100K
C9345 0.1
C9348 0.1
CA112
CA109
CA119
CA120
IRIS
AGC
RG
BG
FE205
FE207
FE206
R9416 5.6K
C9354 0.1
R9408 680K
R9409 560
R9417 15K
R9419 10K
Q9322
TUMX1N
(IRIS DET)
IC935
NJM3414M
(IRIS DRIVE)
C9301
R9415 150K
R9414 18K
C9353 1
R9413 100K
R9405 2.7K
R9406 4.7K
R9404 4.7K
R9437 2.7K
R9427 100K
R9438 1.8K
R9428 10K
R9429 10K
R9430 10K
IC936
LA6358M
(HALL DRIVE)
FE208
FE209

UIT

CAUTION: ✕ 2125TYPE
TOLERANCE ±0.5%

BASIC MODEL	CIRCUIT NAME	
COMMON MODEL	PCB NAME	SCH CODE
	FINISH DATE	
	DRAW ID	PLOT DATE 94.3.1

CA1 (CAMERA) CIRCUIT


4
5
6
7
8
CN911
UNREG
GND
5V(M)
5V(S)
15V
-7V
L9002 CORE
L9001 CORE
C9031 0.1
TP900
TP903
VSUB
R9002 0
C9001 4.7/10
D9016 MA721
C9030 150P
C9199 1000P
D9015 MA141K
Q9010 2SB1218A (BUFFER)
R9010 10K
R9020 10K
C9019
VR9002 47K
C9028 33/16
R9001
R9009 0
C9198 1000P
IC911 MN3726MFE (CCD)
(bottom view)
IS SUB PT V1 V2 V3 V4 PN
H1 H2 OG LG OUT RD R OD
C9004 0.1
C9007 0.1
C9008 1/35
Q9001 2SC4399 (BUFFER)
C9003 0.1
C9002 33 1
R9005
R9022 33
R9023 33 1
C9010 0.1
C9018 1/35
C9017 1/35
IC912 MN3112SA (V. DRIVER)
VHH VM24 DV4 DV3 VH GND IV3 CH2 IV4 NC
DSUB VL DV2 VM13 DV1 VDD IV1 CH1 IV2 ISUB
C9029 22/16
C9013 0.1
IC913 AN2017NS (CDS)
OUT GND SP1 SP2
BLK NC SIN VCC
Q9014 2SC4211L6 (BUFFER)
R9021 22K
R9019 12K
R9018 3.9K
C9016 0.1
C9015
C9081 0.22
C9082 0.1
C9083 10/16
R9081
IC915 SC14S69F (INV.)
D9104 MA141WK
R9082 10K
D9105 MA721
Q9106 UMX1N (BUFFER)
R9191 10K
R9046 2.2
C9045 0.1
R9055 33
D9041 MA141K
R9042 18K
R9041 22K
C9041 0.1
C9042 0.1
C9043
D9043 MA141K
R9043 820
C9046 15P
C9044 15P
D9042 MA141K
R9045 820
R9056 120
R9057 120
R9044
IC914 MN5151H (TIMING)
TST3 HCLR DS2 DS1 RW0 RW1 VSS3 R H2 H1 VDD3 SUB TST2
CH2 CH1 V4 V3 VSS VDD V2 V1 VD HD CLKO
SPO SPI TST4 PNSW VSS2 VDD2 SP1 SP2 TEST XI XO NC
SS1 SS2 SS3 SS4 VTG TST1 FH2 PBLK CP0B CPEN
X9001 19.3125MHz
C9047 15P
R9053
R9058 0
C1901 20P
CLK
TP901 CLK
C9048 27P
R9049 680
R9051 220
R9047 10K
R9048 5.6K
R9054 820
R9061 1K
C9101 0.1
C9102 100/6.3
R9183 10K
IC918 LA6358NM (AGC CONTROL)
Q9109 2SC4399 (BUFFER)
R9194 100
R9196 2.2K
C9107 0.1
R9112 220K
R9107 22K
R9106 15K
C9103 470/6.3
C9134
C9109 1
C9111 1
R9115 6.8K
R9114 27K
R9116 6.8K
R9113 33K
C9112 0.1
C9113 0.1
C9114 0.1
R9117 39K
C9115 4.7/6.3
R9111 0
R9109
R9123 1K
Q9101 XP4601-TX (AGC DET)
Q9104 2SC4211L6 (BUFFER)
Q9103 UMT1N (CLIPPER)
C9108 4.7/6.3
R9118
R9119
R9120 0
R9121
Q9102 UN5113 (SWITCH)
R9122 22K
R9124 10K
R9125 10K
C9116 4.7/6.3
C9000
VAP OUT
SP1 / SP2
Y OUT
Cv OUT
VAP OUT
Y+O IN
RWB GAIN
CAGC CONT
GND2
SIG IN
YAGC CONT
HC CONT
YAGC OUT
GAM IN
KNEE
YDC CONT
VREF3
CP2+CBLK
B-Y DCCONT
GAM OUT
R-Y DCCONT
HI CLIP
LLAP SUB
B-Y IN
WBLK IN
IRIS OUT
BLK OUT
IRIS IN
BW FADE
R9138 33K
C9117 0.1
IC917 SC14S69F (INV.)
R9062 1K
R9063 5.6K
IC916 MN73033XRAH (SSG)
NC NC NC NC CCDS2 CCDS1 CSYNC CBLK CP2 TVMD2 SCBLK FMTP
TEST1 TEST2 TEST3 VSS1 CLK VDD1 EO NC HD NC NC NC
NC TVMD1 LSW BFIDF NC WHD VSS2 SC2 SC1 VDD2 NC DSCCO
VD NC NC NC NC PBLK NC NC WBLK NC OSCI
R9065 0
Q9100 2SC4399 (BUFFER)
R9077 220
R9076 1M
R9080 0
R9078 3.3K
R9068 100
PLL
X9002 17MHz
TP902
C9065 0.01
C1902 10P
VC902 MA366
C9061 0.1
C9068 15
R9075 1.5K
R9074 10K
R9079 0
R9071 10K
R9073 220
C9063 15P
C9064 22/6.3
Q9112 UMT1N (CLIPPER)
R9140 22K
R9149 0
R9105 18K
R9136 10K
Q9113 2SC4211L6 (BUFFER)
R9137 1K
R9127 1K
R9126 3.9K
T9001 A003
T9002 A004
R9133 1K
R9128 33K
R9130 12K
R9131 27K
R9150 12K
R9135 33K
R9142 22K
R9144 4.7K
R9162 68K
R9190 10K
Q9114 2SB1218A (BUFFER)
A B C D E F G H I J K
NOTE a : REC MODE

CA1 (CAMERA) CIRCUIT

MK	DATE	REV NO	REVISION	SUB	SEC

APPROVALS

CHKD

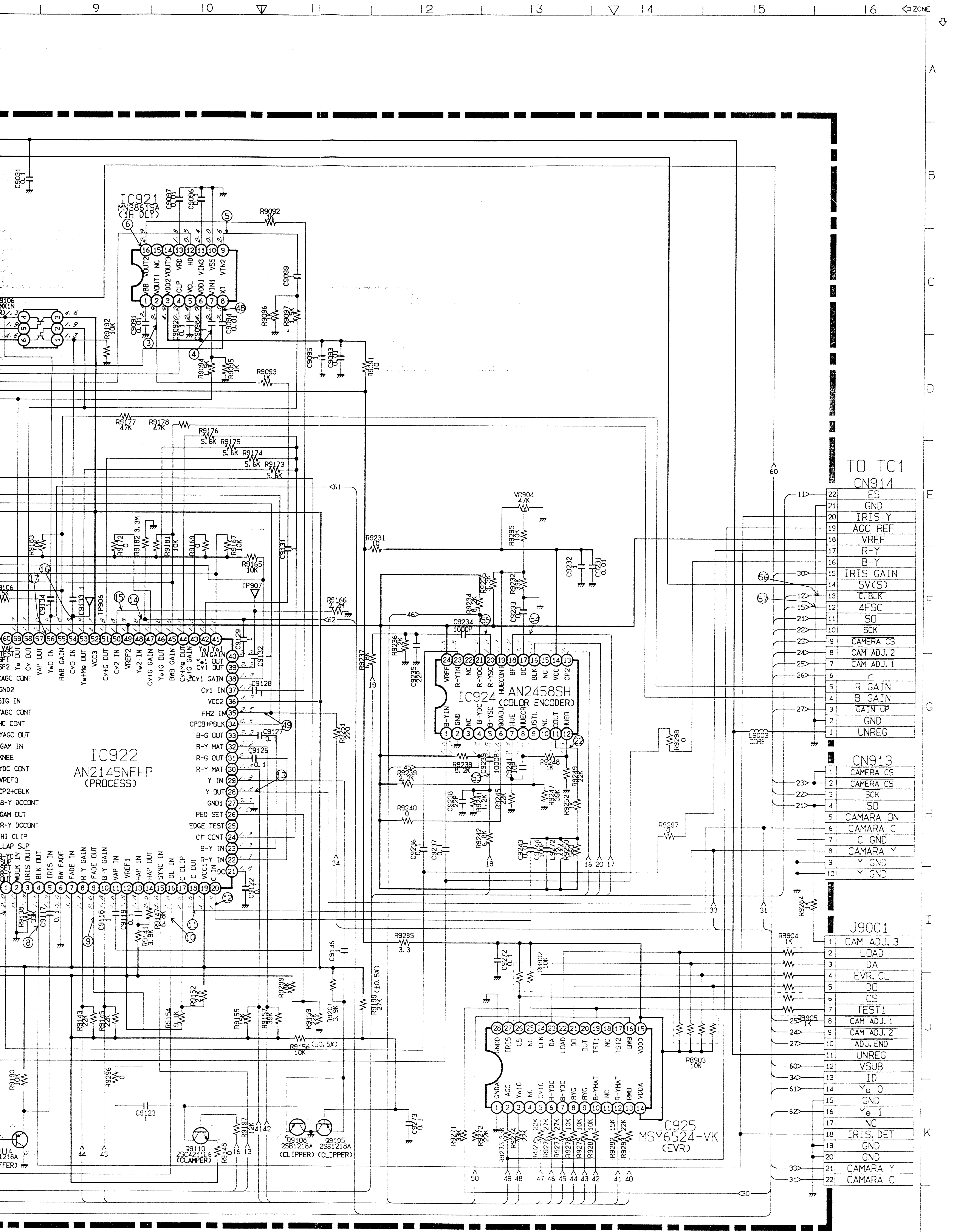
CHKD

DESIGN

DRAWN

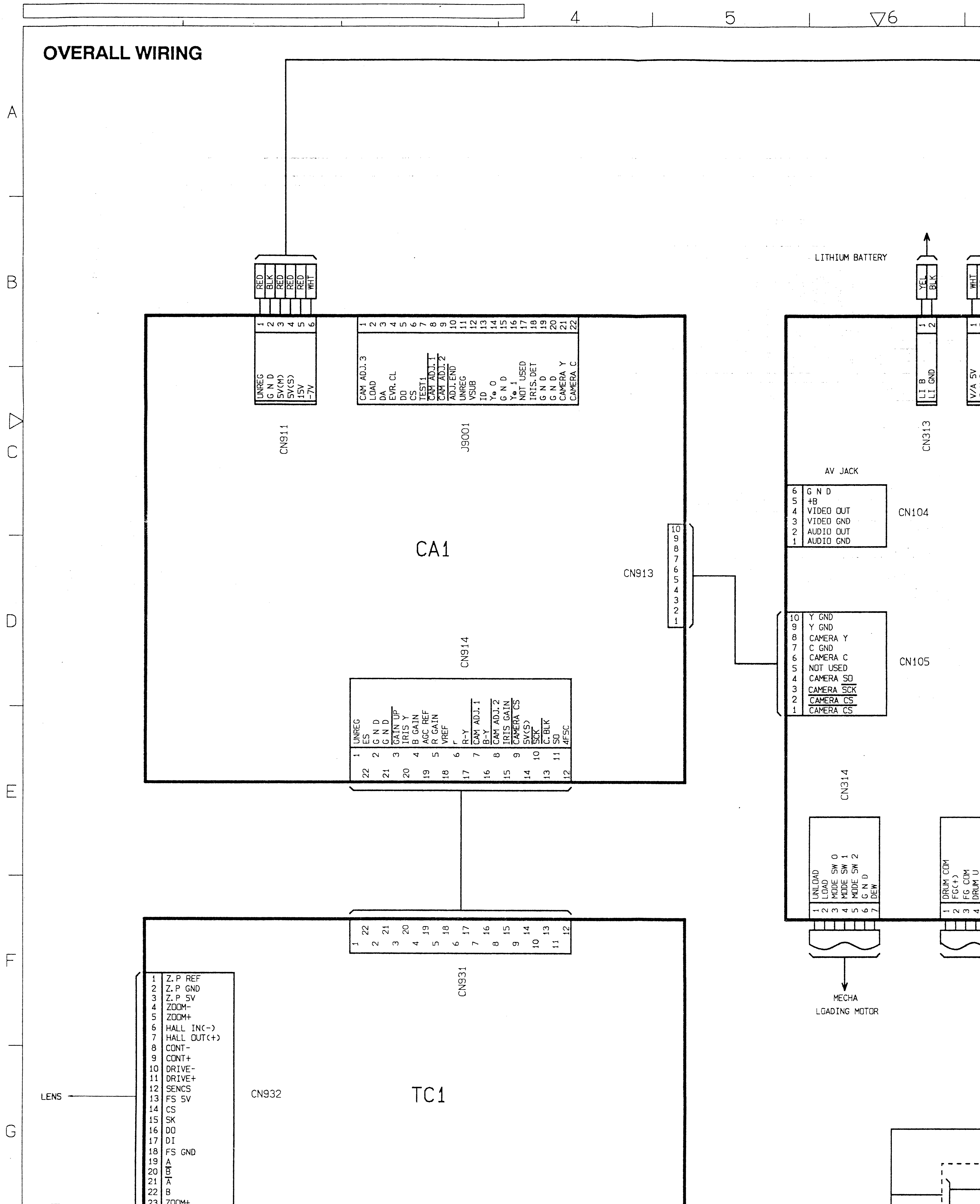
TRACE

2 3 4 5 6 7 8


IC921
MN3861SA
(1H DLY)
IC922
AN2145NFHP
(PROCESS)
IC924
AN2458SH
(COLOR ENCODER)
IC925
MSM6524-VK
(EVR)
TO TC1
CN914
22 ES
21 GND
20 IRIS Y
19 AGC REF
18 VREF
17 R-Y
16 B-Y
15 IRIS GAIN
14 5V(S)
13 C.BLK
12 4FSC
11 SO
10 SCK
9 CAMERA CS
8 CAM ADJ.2
7 CAM ADJ.1
6 Γ
5 R GAIN
4 B GAIN
3 GAIN UP
2 GND
1 UNREG
CN913
1 CAMERA CS
2 CAMERA CS
3 SCK
4 SO
5 CAMARA ON
6 CAMARA C
7 C GND
8 CAMARA Y
9 Y GND
10 Y GND
J9001
1 CAM ADJ.3
2 LOAD
3 DA
4 EVR.CL
5 DO
6 CS
7 TEST1
8 CAM ADJ.1
9 CAM ADJ.2
10 ADJ.END
11 UNREG
12 VSUB
13 ID
14 Ye 0
15 GND
16 Ye 1
17 NC
18 IRIS.DET
19 GND
20 GND
21 CAMARA Y
22 CAMARA C
Q9110
2SC4211
(CLAMPER)
Q9108
2SB1218A
(CLIPPER)
Q9105
2SB1218A
(CLIPPER)
VR904 47K
TP906
TP907
L9003 CORE
ZONE
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
K
L

BASIC MODEL	CIRCUIT NAME	
COMMON MODEL	PCB NAME	SCH CODE
	FINISH DATE	
	DRAW ID	PLOT DATE 94.3.1

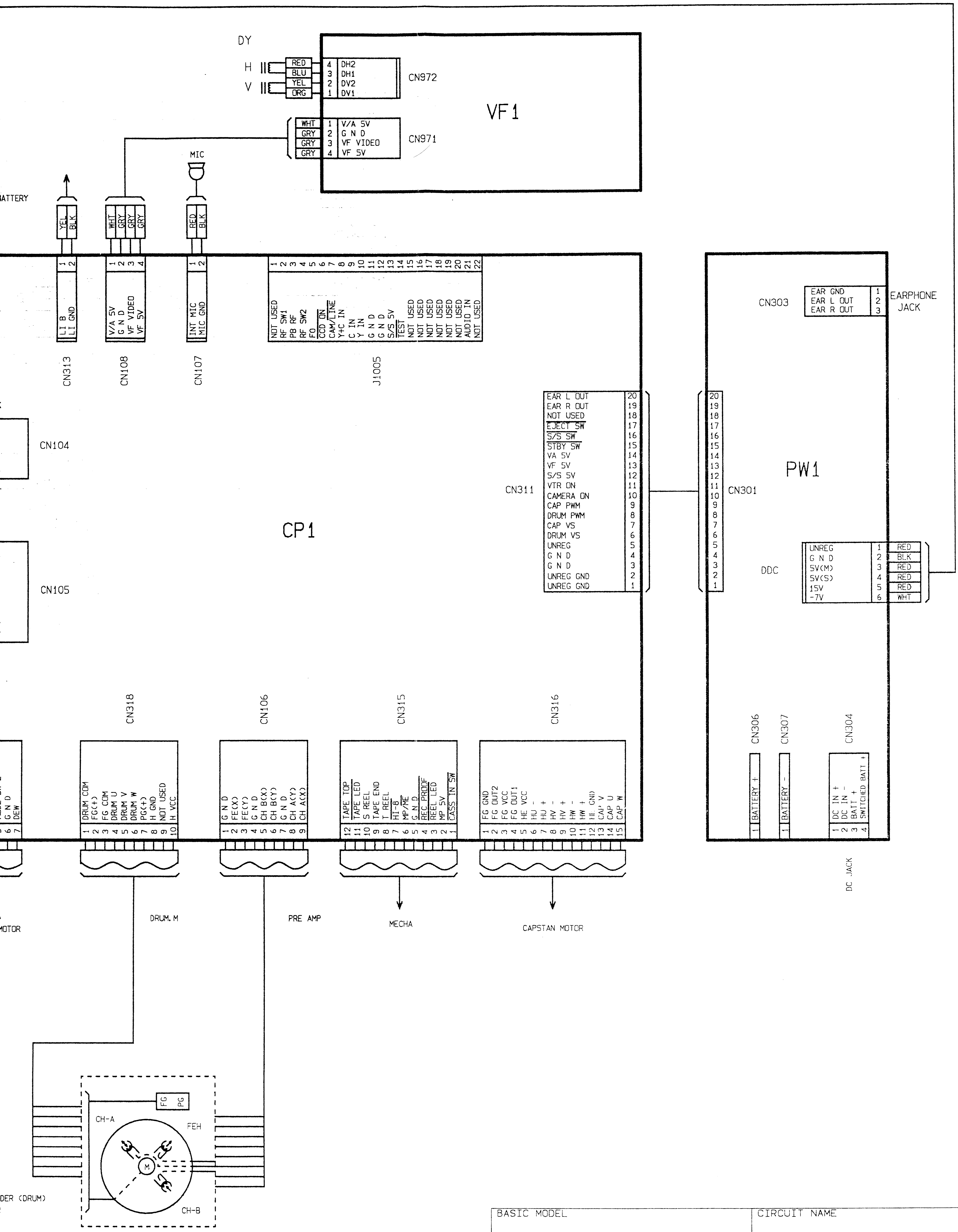
OVERALL WIRING


4
5
▽6
A
B
C
D
E
F
G
RED
BLK
RED
RED
RED
WHT
1 UNREG
2 G N D
3 5V(M)
4 5V(S)
5 15V
6 -7V
CN911
1 CAM ADJ.3
2 LOAD
3 DA
4 EVR.CL
5 DO
6 CS
7 TEST1
8 CAM ADJ.1
9 CAM ADJ.2
10 ADJ.END
11 UNREG
12 VSUB
13 ID
14 Ye 0
15 G N D
16 Ye 1
17 NOT USED
18 IRIS.DET
19 G N D
20 G N D
21 CAMERA Y
22 CAMERA C
J9001
CA1
CN913
10
9
8
7
6
5
4
3
2
1
CN914
1 UNREG
22 ES
2 G N D
21 G N D
3 GAIN UP
20 IRIS Y
4 B GAIN
19 AGC REF
5 R GAIN
18 VREF
6 Γ
17 R-Y
7 CAM ADJ.1
16 B-Y
8 CAM ADJ.2
15 IRIS GAIN
9 CAMERA CS
14 5V(S)
10 SCK
13 C.BLK
11 SO
12 4FSC
CN931
1 22 2 21 3 20 4 19 5 18 6 17 7 16 8 15 9 14 10 13 11 12
TC1
LENS
CN932
1 Z.P REF
2 Z.P GND
3 Z.P 5V
4 ZOOM-
5 ZOOM+
6 HALL IN(-)
7 HALL OUT(+)
8 CONT-
9 CONT+
10 DRIVE-
11 DRIVE+
12 SENCS
13 FS 5V
14 CS
15 SK
16 DO
17 DI
18 FS GND
19 A
20 B
21 A
22 B
23 ZOOM+
24 ZOOM-
LITHIUM BATTERY
YEL
BLK
1 LI B
2 LI GND
CN313
WHT
1 V/A 5V
AV JACK
CN104
6 G N D
5 +B
4 VIDEO OUT
3 VIDEO GND
2 AUDIO OUT
1 AUDIO GND
CN105
10 Y GND
9 Y GND
8 CAMERA Y
7 C GND
6 CAMERA C
5 NOT USED
4 CAMERA SO
3 CAMERA SCK
2 CAMERA CS
1 CAMERA CS
CN314
1 UNLOAD
2 LOAD
3 MODE SW 0
4 MODE SW 1
5 MODE SW 2
6 G N D
7 DEW
MECHA
LOADING MOTOR
1 DRUM COM
2 FG(+)
3 FG COM
4 DRUM U
CH-A
CYLINDER (DRUM)
MOTOR

APPROVALS
CHKD
CHKD
DESIGN
DRAWN
TRACE

MK	DATE	REV NO	REVISION	SUB	SEC

2 △ 3 4 5 △6


DY
H
V
RED
BLU
YEL
ORG
4 DH2
3 DH1
2 DV2
1 DV1
CN972
VF1
WHT
GRY
GRY
GRY
1 V/A 5V
2 G N D
3 VF VIDEO
4 VF 5V
CN971
MIC
ATTERY
YEL
BLK
WHT
GRY
GRY
GRY
RED
BLK
LI B
LI GND
CN313
V/A 5V
G N D
VF VIDEO
VF 5V
CN108
INT MIC
MIC GND
CN107
NOT USED
RF SW1
PB RF
RF SW2
FO
CCD ON
CAM/LINE
Y+C IN
C IN
Y IN
G N D
G N D
S/S 5V
TEST
NOT USED
NOT USED
NOT USED
NOT USED
NOT USED
NOT USED
AUDIO IN
NOT USED
J1005
CN104
CN105
CP1
CN311
20 EAR L OUT
19 EAR R OUT
18 NOT USED
17 EJECT SW
16 S/S SW
15 STBY SW
14 VA 5V
13 VF 5V
12 S/S 5V
11 VTR ON
10 CAMERA ON
9 CAP PWM
8 DRUM PWM
7 CAP VS
6 DRUM VS
5 UNREG
4 G N D
3 G N D
2 UNREG GND
1 UNREG GND
CN301
PW1
CN303
EAR GND 1
EAR L OUT 2
EAR R OUT 3
EARPHONE JACK
DDC
UNREG 1 RED
G N D 2 BLK
5V(M) 3 RED
5V(S) 4 RED
15V 5 RED
-7V 6 WHT
CN318
DRUM COM
FG(+)
FG COM
DRUM U
DRUM V
DRUM W
PG(+)
H GND
NOT USED
H VCC
CN106
G N D
FE(X)
FE(Y)
G N D
CH B(X)
CH B(Y)
G N D
CH A(Y)
CH A(X)
CN315
TAPE TOP
TAPE LED
S REEL
TAPE END
T REEL
HI-8
MP/ME
G N D
REC PROOF
REEL LED
MP 5V
CASS IN SW
CN316
FG GND
FG OUT2
FG VCC
FG OUT1
HE VCC
HU -
HU +
HV -
HV +
HW -
HW +
HE GND
CAP V
CAP U
CAP W
CN306
BATTERY +
CN307
BATTERY -
CN304
DC IN +
DC IN -
BATT +
SWITCHED BATT +
DC JACK
G N D
DEW
MOTOR
DRUM. M
PRE AMP
MECHA
CAPSTAN MOTOR
FG
PG
CH-A
FEH
M
CH-B
DER (DRUM)

BASIC MODEL	CIRCUIT NAME	
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	FINISH	
	DRAW ID	PLOT DATE 94. 3. 1

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